

AMENDMENT**In the Specification**

On page 50, please amend the paragraph beginning [00316] with the following:

1. Combine in a microfuge tube:

1 ug total RNA/8ul DEPC treated water (Ambion #9922)
 2ul (1 ug) Oligo d(T)22 -- T7 (Operon, 5'TCT AGT CGA CGG CCA GTG AAT TGT AAT
 ACG ACT CAC TAT AGG GCG 3') (SEQ ID NO: 385)

On page 50, the paragraph beginning [00322] has been amended as follows:

1ul Template Switching Primer (1ug/ul) (Operon, 5'-AAG CAG TGG TAT CAA CGC AGA
 GTA CGC GGG-3') (SEQ ID NO: 386)

Please substitute **TABLE 1** with the **TABLE 1** amended as follows:

TABLE 1

ID #	Gene Name	Accessio n Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C1	c-myc	X95367	503	caagaggacgaagaagaaa tttatgtt (SEQ ID NO: 1)	cgcttccgcaacaagtccctt (SEQ ID NO: 2)
C2	c-erb B-2	AB00845 1	507	gtgtttatggtgacttggaaat g (SEQ ID NO: 3)	gtactccgggtctctgctgttag g (SEQ ID NO: 4)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C3	Catalase	AB012918	506	gacaaaatgcttcagggtcgctt (SEQ ID NO: 5)	ccatgctgcataaaggtgtgaaatc (SEQ ID NO: 6)
C4	p53	AF060514	506	actttcgacacagtgtggtggtg (SEQ ID NO: 7)	cggaggttagattgcccttctt (SEQ ID NO: 8)
C5	Metallothionein 2	AB028042	330	gactccagccgccccctct (SEQ ID NO: 9)	aggaatgttagtagcaaacgggtca (SEQ ID NO: 10)
C6	Interleukin-2	U28141	490	tcacagtaacctcaactcctgc ca (SEQ ID NO: 11)	gtcagtgtgagaagatgctt gaca (SEQ ID NO: 12)
C7	Metallothionein 1	D84397	376	gctctgactccctgtggctcg (SEQ ID NO: 13)	caaacggaatgtaaaa caagtca (SEQ ID NO: 14)
C8	Intercellular adhesion molecule-1	L31625	507	caagtcagagctggaattcccc at (SEQ ID NO: 15)	tggaaagaactcccaactgg acat (SEQ ID NO: 16)
C9	Multidrug resistant protein-1	AF045016	510	ggcaaagagataaaggcacct gaatg (SEQ ID NO: 17)	atagatgccttctgagccagc ag (SEQ ID NO: 18)
C10	Beta-actin	AF021873	509	aagtattctgtgtggatcgagg gc (SEQ ID NO: 19)	caactcaaggcaattaacca ccc (SEQ ID NO: 20)
C11	Tumor necrosis factor-alpha	S74068	510	caaattgcctccaactaatcag cc (SEQ ID NO: 21)	acagggcaatgatcccaaag taga (SEQ ID NO: 22)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C12	Nitric oxide synthase-1, inducible	AF077821	510	gtccttgcatcctcattggacct (SEQ ID NO: 23)	gctgtttgctgcaccatctttt (SEQ ID NO: 24)
C13	BRCA-1	U50709	499	tttctgggtattgcaggagaa aa (SEQ ID NO: 25)	agtctgcagcagttctggaaat ct (SEQ ID NO: 26)
C14	Metallothionein-IV	AB028041	385	ctgtgacagcattggagcttc g (SEQ ID NO: 27)	tttacatgagtgtcaccaccac ca (SEQ ID NO: 28)
C15	Tumor necrosis factor receptor	AF013955	507	ggctctgttgtggaaatacc cc (SEQ ID NO: 29)	cagttcacacaagagacgca ttca (SEQ ID NO: 30)
C16	c-kit	AF099030	504	gagacttggctgctagaaaat cctcc (SEQ ID NO: 31)	aattgatccgcacggaatgg (SEQ ID NO:32)
C17	CD40 ligand	AF086711	508	ccaatttgaaggccttctcaagg a (SEQ ID NO: 33)	gagtaagccaaaagacgtg aagcc (SEQ ID NO: 34)
C18	Cubilin	AF137068	508	tgaatgcacacatgacttctgg a (SEQ ID NO: 35)	tatggatacactgcatactct gct (SEQ ID NO: 36)
C19	Alkaline phosphatase	AF149417	499	cagatgtggagtagatgg acga (SEQ ID NO: 37)	agaccaaagatagagtggcc ccg (SEQ ID NO: 38)
C20	Pancreatic lipase	M35302	490	actcagagagcatcctcaacc ctg (SEQ ID NO: 39)	cagaagctgtgcactgtttct ct (SEQ ID NO: 40)

ID #	Gene Name	Accessio n Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C21	Apolipoprotein CIII	M17178	236	agccctggaggaagaggacc cct (SEQ ID NO: 41)	cagaggctggagttggttgg cc (SEQ ID NO: 42)
C22	Interleukin-4	AF05483 3	301	tcacctcccaactgattccaact ctgg (SEQ ID NO: 43)	gtcttgttgcctatgctgctgag gttc (SEQ ID NO: 44)
C23	Tissue inhibitor of metalloproteinases-1	AF07781 7	492	cttgtcaactccaaatcgta tca (SEQ ID NO: 45)	gtgcataatccctggctctctgg cag (SEQ ID NO: 46)
C24	Ubiquitin	AB03202 5	341	gcagattttgtaaagaccctga cggg (SEQ ID NO: 47)	acttcttctgcggcagttgaca gcac (SEQ ID NO: 48)
C25	Matrix metallo-proteinase-2	AF09563 8	260	agcggtcagtgtgaaggaggt gg (SEQ ID NO: 49)	tgtcccagggcacatgaagt ca (SEQ ID NO: 50)
C26	Interleukin-6	U12234	493	cctggtccagatgctaaagaga caaggt (SEQ ID NO: 51)	acctggctccaaacatcgaggatatt (SEQ ID NO: 52)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	517	tggaaatttgaacccaaacaaa ggca (SEQ ID NO: 53)	cccgcatcctctaactggacct tgt (SEQ ID NO: 54)
C28	Phenol sulfotransferase	D29807	495	gctcccccagaccttggatc (SEQ ID NO: 55)	gcatcaaagcgctcattctgg gc (SEQ ID NO: 56)
C29	GRP94	U01153	503	aatcccagacatcccgtatca aagac (SEQ ID NO: 57)	cacttcttctgtgacccacaat ccca (SEQ ID NO: 58)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C30	E-selectin	L23087	506	ttacacgggtgctgtcactggat gaaa (SEQ ID NO: 59)	caccagggtccccactattc atgtt (SEQ ID NO: 60)
C31	gastric lipase	Y13899	501	tgcactatcatcagagcatgcc tccct (SEQ ID NO: 61)	tccatccttaggaccccgagat catgac (SEQ ID NO: 62)
C32	HSP27	U19368	503	ggacccttccgcgactggta c (SEQ ID NO: 63)	tgatttctgccgactgggtggct (SEQ ID NO: 64)
C33	IL-10	U33843	472	cgggtccctgctggaggactt aaga (SEQ ID NO: 65)	ggtatgacggggttctccaag cagt (SEQ ID NO: 66)
C34	caveolin-1	U47060	470	tccgaggggcacctctacacc gt (SEQ ID NO: 67)	ttgccaacagcctaaagaa cg (SEQ ID NO: 68)
C35	H-ras, p21	U62092	193	accatccagctcatccagaac cacttc (SEQ ID NO: 69)	tggcaaatacacagagaaa gccctccc (SEQ ID NO: 70)
C36	rab2	M35521	514	agacaagaggttcagccagt gcatga (SEQ ID NO: 71)	gttgtggcatttagtagcagc gtgctg (SEQ ID NO: 72)
C37	rab5	M35520	521	aaggcttagtgcttcgtttgtgaa ggg (SEQ ID NO: 73)	ttggctgcgtgggtcagtaag gtcta (SEQ ID NO: 74)
C38	rab7	M35522	508	cccccaacacattcaaaaccct cgata (SEQ ID NO: 75)	tgtgtgtcagggtgaagtgtt tgg (SEQ ID NO: 76)

ID #	Gene Name	Accessio n Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C39	APO CII	M17177	256	ctggttctgttgcttgtccctggta (SEQ ID NO: 77)	ggtcagtaaaaatccctgcgtaagtgc (SEQ ID NO: 78)
C40	endothelin-2	X57038	330	ctgtccgcctctgtccccctgtt (SEQ ID NO: 79)	ggagtagggacaacaccca gccg (SEQ ID NO: 80)
C41	FGFR2	AF21125 7	498	tgattgttcttgccacaaaaat gcc (SEQ ID NO: 81)	taatacagaacgcacaaca cgcgac (SEQ ID NO: 82)
C42	leptin	AB02098 6	503	gccttaccctcagggacctgc a (SEQ ID NO: 83)	gcatgaacaaaacagcctcc gcc (SEQ ID NO: 84)
C43	prosta- glandin D synthase	AB02698 8	510	agggtccctgcagcccaactt c (SEQ ID NO: 85)	gggcggcggtcacctacttgtt c (SEQ ID NO: 86)
C44	paraoxo- nase-2 (PON2)	L48515	472	caggactccacagctttcccc agata (SEQ ID NO: 87)	ggtaaatattgtccatttg tgca (SEQ ID NO: 88)
C45	beta- glucuroni- dase	AF01975 9	493	cgcgtatgtggacgtcatctgt gt (SEQ ID NO: 89)	agacagaggctcagagggc gaacg (SEQ ID NO: 90)
C46	caveolin-2	AF03922 3	359	ctccaggtggctcgaggac gt (SEQ ID NO: 91)	tgggtccaagtgctcagtcgt g (SEQ ID NO: 92)
C47	matrix metallo- proteinase- 14	AF03202 5	350	ttcttcaaaggagacaagcact gggtg (SEQ ID NO: 93)	tagcctggctcacccagctt ctgg (SEQ ID NO: 94)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C48	matrix metallo-proteinase-9	AB006421	471	gattctccaagggcaaggac gc (SEQ ID NO: 95)	tcacgttagccacttcgtccac c (SEQ ID NO: 96)
C49	IL-8	U10308	498	gtggcccacattgtaaaaactc agaaa (SEQ ID NO: 97)	gaccaaggcaaggttaaaa aggactc (SEQ ID NO: 98)
C50	keratinocyte growth factor	U80800	482	caatgacatgactccagagca aatggc (SEQ ID NO: 99)	ttgccataggaagaaagtgg gctgttt (SEQ ID NO: 100)
C51	decorin	U83141	505	gattaaaaatggagccctccaggaaat (SEQ ID NO: 101)	ataattccaagctggatggcagacg gagcg (SEQ ID NO: 102)
C52	glucose-6-phosphatase	U91844	508	ctggggatctcagctgcaggat tttct (SEQ ID NO: 103)	atccttcctctccctgcccctc ctc (SEQ ID NO: 104)
C53	TGFB-1	L34956	489	gacccttcctgctcctcatggcc (SEQ ID NO: 105)	cttaaatacagccccggcgc gag (SEQ ID NO: 106)
C54	ZAP36/annexin IV	D38223	488	gacacgtccatgttccaga gggtg (SEQ ID NO: 107)	ccagatgttcaccctgtatga aggag (SEQ ID NO: 108)
C55	N-ras	U62093	224	gttggagcagggtggtgtggaa aaag (SEQ ID NO: 109)	gcaaatacacagaggaagc cttcgccc (SEQ ID NO: 110)
C56	K-ras	U62094	228	gtagttggagctgggtggcgtag gcaa (SEQ ID NO: 111)	ggcaaatacacacaagaaag ccctcccc (SEQ ID NO: 112)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C57	p38 MAPK	AF003597	506	ctggtgaccatcttatggag cagat (SEQ ID NO: 113)	ttagcaaagttcatcttcggcat ctgg (SEQ ID NO: 114)

Please substitute **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY**, with **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY** amended as follows:

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C1	c-myc	X95367	caagaggacgaagaagaaattgttgttctgtggaaaaaggcag gccccctgc当地aaagggtccgaatcggttccccctctgtggaggccac agcaaacctcctcacagcccactggtccctaagagatgccatgttcca cccatcagcacaactacgcggcaccctccaccaggaaaggactat ccggccgccaagagggcgagggtggacagtggtagagtctgaaac agatcagcaacaaccgcaaattgtccagccccaggcttcggacacg gaggagaatgacaagaggcgaacacacaacgtcttggagcgcag aggaggaacgagctaaacggagacttcttgcctgcgtgatcagatc ccggagttggaaaacaatgaaaaggcccccaaggtagtgatcctaa aaaaggccaccgcgtacatccctgtccgtccaaggccgaggagaaaaag ctcccttccgaaaaggacttgtcgccaagc (SEQ ID NO: 115)
C2	c-erb B-2	AB008451	gtgttgatggacttggatggggcagccaaggggctgcagac cttccctcacaggaccccagccctctccagcggtacagtggaggacc acggtaaccttgcctcgactgtatgttgcctggcggcggc gcagccccccaggcttaatatgttgcctggcggc ccccccttgccttagaaggcccttgcctccggcaccggctggc cactctggaaaggcccaagactctgtcccccaagactctcccttgc aagaatggggttgtcaaagacgtttgccttggagtgctgtggagaat ccggagttacccgcgtccggcggcggc ctccctccaggccctcaggccctggcacaacccgtattactggacc gatccatcagagcggggctccacccagcacccttgcggacc acaggcggactac (SEQ ID NO: 116)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C3	Catalase	AB012918	<p>gacaaaatgcgttcagggtcgctttgcctatccgtacactcaccggcac cgcctgggacccaactatcttcagataccgtgaactgtccctccggct cgagtggccaactaccacgggatggccccatgtgcattgtgcata cagggtggtgcctaaattactaccatacgatcttagtgcctgcaca acagcgttgtagccatgcatacgccatgtcgccagatgtgcag cgcttcacagtgccatgcataatgtcactcagggtgcggaccttct atttgaaggtaacttggtaagaggagaggaaacgcctgtgcagaac attgctggccatctgaaggacgcacaactttcatccagaagaagcg gtcaagaacttcaggatgttcaccctgactacggggccgcattcagg ctctttggacaaatacatgtgagaaacctaagaacgcgattcacac ctttatgcagcatgg</p> <p>(SEQ ID NO: 117)</p>
C4	p53	AF060514	<p>actttcgacacagtgtgggtgccttatgagccacccgagggtggct gactataccaccatccactacaactacatgttaacagttcctgcattgg aggcatgaacccggcgcccatccactatcatcattccatcccggaa actc cagttggaaacgtgtgggacgcaacagctttaggtacgcgttgtgc tgccggagagacccggactgtggaggagaatttccacaaga agggggagccgtgcctgagccaccccccggagatccaagcgagc actgcctccagcaccagctctcccccgcaaaagaagccac tagatggagaatatttcaccctcagatccgtggcgtgaacgcstatg atgttcaggaaatctgaatgtaaagcctggagactgaaggatccc aggtggaaaggagccaggggaaagcaggctactccagccacctgaag gcaaaagaagggcaatctacctctcg</p> <p>(SEQ ID NO: 118)</p>
C5	Metallothionein 2	AB028042	<p>gactccagccccccttcgcctatggatccaaactgcctgcgcgc ggggggtccctgcacgtgcgcggctctgcataatgc当地 gatgcacccctgcataagaagagactgtgcctctgcgcggct tgccaaagtgtgcccagggtgcatactgcataaggcgcatggaca agtgcacgtgtgcctgatgtggggagagcatttcgtatgtaa taga gcgacgttacaaacctacatgttttttttttttttttttttt ggtccaaactctgacccttgcattactacattct</p> <p>(SEQ ID NO: 119)</p>
C6	Interleukin-2	U28141	<p>tcacagtaacctcaactccgtccacaatgtacaaaatgc当地 gcatgcactgcacgtgtactgtgc当地 gctctacaaaggaaacagagacaacagatggagcaattactgt gagtttgcatttaatgttacacgc当地 ggatgc当地 acacccatgtcttagc当地 aggttacactcaaagcaaaaacgttcaactgc当地 gagacacacaaggaaat aatc当地 gagcaatatgtaaactctgaaactaaaggatgt gaaac aagttacaactgtgaatatgtatgt gagc当地 gagacacacaaccattacacaatt</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ctgaacaaatggattacccttgtcaaaggcatctcaacactgac (SEQ ID NO: 120)
C7	Metallothionein 1	D84397	gctctgacttcctgtggctgcctggacacctccgcctcgccctgc gcctcgccctcgccctcgccgtcgagatggaccccactgctc tccaccggtggtcctgcacgtgcgtggcctgcataatgcaaggag gcaaattcacccctgcagaagaagagtgtgcgtcctgcgtccccgt ctgtgccaagtgtgcccagggtgcacatgcacgggtgcgtcgacaa gtcagactgctgcctgtatgtgagaacacactgtccctgtatata acaaggcaacatgtacaaacctgcagttaaagcattttcatatact ctgacttgtttctacattcccgtt (SEQ ID NO: 121)
C8	Intercellular adhesion molecule-1	L31625	caagtcaagactggaattccattccatggctaagctgcattcc aggaggactggcaatggatcacatgttagtggcgcacatgc acaacccactgagccccatactccctccctgactgacactgac ttagccgtctctccctacgcacatctgtactgtgcacatgc ctgcacatgcctgaacacgaatgaccactcactggcagtaactg gtccccatgaaactgcccacccctatgtgtccctgcctggcc ctcggtggcaccatacaggacacagactctggcagccccaaat gcagagacgaggccctgcaggcaggatggcagaagaggccgg ggatccctgtcccgactcccgaaagttctctgttagtaataa ggtttccatgtccatgtttccatgtccatgtccatgtcc gtgggcgtgtctgtgagttggaggagggtgtcatgtcc actgtttcca (SEQ ID NO: 122)
C9	Multidrug resistant protein-1	AF045016	ggcaaaagagataaaggccatgtccatggcggccgg ggcatcggtctcaggagccatccgtttactgcacatgc acatggcctatggagacaacagccgggtcgatcacatg aaggatata gcaggcaggccaaaggaggccacatacaccactcatgc gagacactc cctgagaaaatacacaacaccaggtagggagaca aaaggaaacccagct ctgggtggccagaaacagccatgtccatagctgc gcctgttagaca gcctcatattgtttggatgaagctacatc agactgtggata aaaaagggtgtccaagaaggccctggacaaaggcc aggagaaggcc acccatgttgc atgc ccatgttgc caccatcc cagaatgc cagatt aatagtgtgttgc agaatgg caaagt caaggag catgg cacacatca acagctgt ggctc agaaggcat tat (SEQ ID NO: 123)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

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ID#	Gene Name	Accession Number	Target Sequence
C10	Beta-actin	AF021873	aagtattctgtgtggatcgaggctccatcctggcctcgctgtccaccctc cagcagatgtggatcagcaagcaggagtagcgcgactcgccgc ccatcgccatcgccaaatgcgttagatcgactgcgacgc cattgctgtcatgactgtgaattccgaagtataaattggccctggccaaatgg ctagcctcatgaaaactggaaataagcgcttggaaaagaaaatttgccttga agctngtatctgtatatacagcancatggattttagaacttgttgcgtatctg acnttgatccaagtaactgttccctggatatagtttaataccgcatttc aggattctctagaggctggcaagagtcgtgaaccaggcattttctgt ccggctcaacagggtggaaagggtccgagccttaggaccacttcc cttacccaatgtttcctggccagaacaccgtgggtggtaattgccttga gtt (SEQ ID NO: 124)
C11	Tumor necrosis factor-alpha	S74068	caaattgcctccaactaatcagcccttgcacagactcaaaatcatct tctcgaaaccttcaactgtacaagccaggtagctcatgtttagcaaaacccc gaagctgagggcagctccaggctggctgagccgacgtgccttgc cctggccaaatgacgtggagctgacagacaaccagactgtatgtcc agatgggttgcacccatgtgccttgcacccacaccatcagccgc tgccctccaccatgtgccttgcacccacaccatcagccgc tcctaccagacaaggtaacactactctgccttgcaccaagagcc caaaggggagaccccagaggggaccgaggccaagccctggta gcccatctaccctggaggggttccaactggagaagggtatcgact cagcgctgagatcatctgccttgcacccatgtggacttgttgc agttactttggatcatgcctgt (SEQ ID NO: 125)
C12	Nitric oxide synthase-1, inducible	AF077821	gtccttgcacatccatggacactggcacaggcatgc tctggcagcagcggctccatgcacatcaagcacaaaggctccgggg agccgcacatgcctgggtttgggtgcgcgc ctgtatcgggaggagatgttggagatggccagactgtgggtgc gagggtgcacacagcatttcgcctgc ttcaagacatccctgcgc tccatgaggagcaggccacc cgggatgtggccatacc ctgagtgaaaggcaagtt agcgctatcatga aagatggtgc (SEQ ID NO: 126)
C13	BRCA1	U50709	ttctgggttgcaggaggaaaatggtagttgc cagtctttaaaaaggaaaggatacttagatgc gaggagatgtgtgaatggaaaggaaatc aagagaatcccaaggac ggccttagaaatctgt tttgc (SEQ ID NO: 127)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			attagagtggatggcacctctgtgggcttctgtggtaaggagccctc gttattcacccctcagcaagggactcatccagtggtagtcgtcgacccg gacgcctggacagaggacagtggctccatgcgttggccatgtgt gaggcacctgtgtgacccgagagtgggtactggacagtgttagccctc taccagtgcaggagctggacacctacactgtatcccgcagatcccaga actgtcgacact (SEQ ID NO: 127)
C14	Metallothionein-IV	AB028041	ctgtgacacgcattggagctctggacacctggacatggacccgggg aatgcacctcgatgtctggaggaatctgttatctgtggagacaatgcaaa tgtacaacactgcaactgtaaaaacatgtcgaaaaagctgtccctgctg ccccccggctgtgccaagtgtgcccaggctgcattgcggaaaggag gctcggacaagtgcagctgtgcctgaaccgcattcgtgtctgg gctggcggggcgggggttggatgccacagccggaaatgtctgt acagtgcattatgtgagaaactgaaattattgtaccataggttatgttt tatattgtcagagggtgggtggactcatgtaaaa (SEQ ID NO: 128)
C15	Tumor necrosis factor receptor	AF013955	ggctctgttgtggaaatatacccaatacgcttactgcactgttccctcac ccccggaaacagggtgaagagagacttctgtgtcccccaggaaaaat attcacccctcaagacgcattccattgtgtacgaatgtccacaaaggga cctacctgtacaatgtactgtccaggcccaggctggacacagactgca ggaaatgtgaaaacggaactttacagcttcagagaaccacccatcgac aatgtcttagtgcctcaaatacgccggaaaggaaatgaaccagggtgaga tttccctgtactgttacccggacacgggtgtggctgcaggaaac cagtaccggtttttggatgtgaaaccctttccagtgcaataactgcagc ctctgcctaattgcacggcgtcagatctccgtccaaagagaagcagaac accatatgcacctgcccacgcggggttttcaagagagcatgaatgc tctctgtgtgaactg (SEQ ID NO: 129)
C16	c-kit	AF099030	gagacttggctgtggaaatatcccttactcatggcgaatcacaag atttgtgtatgttggctagccagagacatcaagaatgttcaattatgtgt caaaggaaaacgcgtcggtacactgttggatgtggatggccctgagagca tttcaactgtgtacacattgtggatgtgtccatggatggatggccctgag gtggggagcttctttaggaaggcagccctaccctggatggccctgag attcaaagtctacaagatgtcaaggaaaggctccggatgtcagcc tgagcatgcacctgtggaaatgtatgacatcatgaaagacgtgtggat gctgatccctgaaaaggccacgtccaaagcagatgtcgacgactt gagaagcagattcagatagcaccatatttattccaaacctcgcc actgcaggcccaacccagagcgtccccgtggaccattccgtgcgg atcaatt (SEQ ID NO: 130)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C17	CD40 ligand	AF086711	<p>ccaaatttgaaggctttcataaggagataatgctaaacaacgaaatgaag aaagaagaaaacattcaatgcataaaaagggtgatcaggatctcgaaat tgcagcccatgtcataagtggggctactacaccataagcagcaacctggtag ggggggccaaaagggtactacaccataagcagcaacctggtag cctcgagaatggaaacagttggccgtgaaaagacaaggacttatta cgtctatgcccaagtcacctctgcctcaatcggcagctcgagtcaag ctccgttcgtccgcagcctatgcctccattccccgagttggaaacggagag agtcttactccgcgcgcgagctccgcggctcgccaaaccttgcgc caacagtccatccacttggaggagtttgaattgcattccaggtgc ggtgttcgtcaacgtgactgatccaagccaagtgagccacgggaccg gcttcacgtctttggctactc</p> <p>(SEQ ID NO: 131)</p>
C18	Cubilin	AF137068	<p>tgaatgcacacatgactcttgaggtaagaaatggaaagtgatagcagt tcaccatttttggcacatactgtggaaactctgttgcagatccatcttct cgaaaacaacaaactatacctacgggtaagaccgatagcgcacactcc aatcgtgggtatgaaattgtctggacctcatcaccctctggctggtag accctttatggagacagtgggtccctcaccagcccgatccggc ttaccccaacaacactgactgtgaatggccatcatcgctctgctgg agacctgtcaccgtcacctttactttatcagcatcgatgtccggagac tgttccagaactatctcatactctacgatggaccggatgctaattctccat ccttggaccatactgtgggtagacaccaacatgctcccttggcc tcttcacatcggtcttcataaaattcacgcagatgtcagtgatccat ca</p> <p>(SEQ ID NO: 132)</p>
C19	Alkaline phosphatase	AF149417	<p>cagatgtggaggatgagatggacgagaagtccaggggcaccggc ggatggcctgaacctcatcgacatctggaaagaactcaaaccgagac acaagcactctcactacgtctggaaaccgcacggaaactcctggccctcg accctacaccgtggactacctcttgggtctttggatggccggggacatg cgtacgagctgaacacgaaacaacgtgactgaccgtactccga gatgtggaaatagccatcaagattctgagcaagaaccccacgggct cttctgtgtggaaaggaggcaggattgaccacgggcatcaggg caaggccaaggcaggcgctgcacaggcagttggagatggaccggc aatgggaaggcaggcgcatgaccccttggaaagacacgcgtaccgt cgtaactcgccgaccactcccacgtctcacccttggccggatcccc cgccggcaactctatcttgggtct</p> <p>(SEQ ID NO: 133)</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C20	Pancreatic lipase	M35302	actcagagagcatcctcaaccctgatggattgttcctacccctgtcct cctacaggcccttgaatctaacaagtgcctccctgcccagatcaagg gtgcccacagatggtcaactatgcgtataaaattgtgtcaagacaagt atgagacacagaaaatactcctgaacaccggagattccagaatttgc tcgctggagatcggggttctataacattgtctggaaaagagccactg gtcaggctaaagtgccttgttgaagtaagggaaatactcatcaattca atatctcaaggggatctcaaaccaggctactcattccaatgagtttg atgcaaagcttgatgttgaacaattgagaaagtcaagttcttggaaata acaacgtgttaacccaacccttcccaaagtgggtcagcacaatcgatca ccgtcaaaagggagaggagaaaacagtgcacagctctg (SEQ ID NO: 134)
C21	Apolipoprotein CIII	M17178	agccctggaggaagaggaccctccctctggccttatgcagggtta catgcagcacgccaccaagacggccaggacacgcgtaccagcggt caggagtcccaggtggcgcagcggccaggggctggatgaccgata gcttcagttccctgaaagactactgcagcacgttaaggcaagttact gggtctggattcagctctgaggccaaaccaactccagcctctg (SEQ ID NO: 135)
C22	Interleukin-4	AF054833	tcacctccaaactgatccaactctggctgtactgcactcaccagca ccttgcacggacataactcaatattactattaaagagatcataaaa tgttgaacatcctcacagcgagaaacgactcgtgcattggagctactgt caaggacgtcttcactgcgtccaaagaacacaagcgtataaggaaatctt ctgcagagctgtactgtactgcggcagatctatacacacaactgcctcc aacagatctcagaggactcacaggaacctcagcagcatggcaaa caagac (SEQ ID NO: 136)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	cttgcaactccaaatcgcatcaggccaaatcgatgtggggaccgca gaagtcaaccagaccgacttaaccggcggtatgagatcaagatgac caagatgtcaagggttcagcgcttggaaatgcctcgacatccgc ttcgtcgacacccccccgcctggaaagcgctgcggataactgcacagg cccagaaccgcagcggagttctgtgcggaaacctgcggac ggacactgcagatcaacacactgcagttcgatgtggcccccgtggagc ctgagttaccgcgtcagcgcggggctccaccaagacatgcgtgg gtgaggggtgcacagtgttacctgtcatccatcccgtccaaactgc agtgcacactcactgcgtgtggacggaccactcctcacaggctgc agggtttccagagccgcacactggcctgcctgccaagagagccagg atatgcac (SEQ ID NO: 137)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C24	Ubiquitin	AB032025	<p>gcagattttgtaaagaccctgacggccaaaactatcacccctgaggtc gagcccagtgcacaccattgaaaatgtcaaagccaaaatccaagaca aggagggcatccgcctgaccagcagcgtctgatttcgcccaaac agctagaagatggccgaactctgtcagactacaatatccagaaagagt ccacccctgcacttggtgctcgccctcgaggtggcatcattgacccctcac tccgcccagctggcccaagaaatacaactgcgacaagatgatctgcgc aagtgttatgctgcctgcaccccccgtctgtcaactgcgcagaagaaga agt (SEQ ID NO: 138)</p>
C25	Matrix metalloproteinase-2	AF095638	<p>agcggtcagtgtgaaggagggtggactctggaatgacatctacggca accccatcaagcggattcagttatgagatcaagcagataaaagatgtca aaggaccagacaaggacatagatgttatctacacggctccctccgc cgtatgcggggtctccctggacatggagaaagaaggatgtctatt gcgggaaaggccgaggggaaacggcaagatgcacatccccctgtg acttcatcgtccctggaca (SEQ ID NO: 139)</p>
C26	Interleukin-6	U12234	<p>cctggtccagatgctaaagagcaaggtaaagaatcaggatgaagtga ccactcctgacccaaaccacagacgcgcctgcaggctatctgcagt cgcaggatgatgcgtgaagcacaacaattcacatcctgcgg gtctggaggattccctgcagttcagttcgtgagggctgtccgataatgtac ctgggcatctaagatgtctgttagtcatggcattcccttcctcaggatcagaa acctgtcagtgccacaaaactatgtttctctgtgaggaactaaaa gtatgagcgttaggacactatTTAATTATTTAAATTATGATAATTAAATATG tgatatggagtaatttatataagtaatagatatttatTTTATGAAGTGC acttggaaatTTTATGTATTCTCATTTGGAAAAAGTTAACGTAAAATGCTATGC ggctgtaaatcctcgatgttccggagccagg (SEQ ID NO: 140)</p>
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	<p>tggaaatttgaacccaaacaaaggcagagtacacagacactttatgtta tggcccccaggatacaaccgtcggtcagccctccatcggt aggaaggtagtcctgtgaacatgacctgcctagcgatggccctccgc tccgaacatcctgtggagcaggccgctaagtaatggccctgcgtc tccttcaggatccaaatttcacctaactctgcaaaaatggaaaggatct ggtattttatgtgtgaaggataaccaggctggaataagcagaaaaag aagttagaaattaattatccaagttgtccgaaagacatacagcttatacgctt ttccctctcggatgtcaaggaaaggagacactgtcattatctccgtacat gtggaaatgtccaaaaactggataatctgtggaaagaaaaaagcagag acgggagacacagtgtctaaagtccagagatggcatataccatcca caagggtccagtttagaggatgcggg (SEQ ID NO: 141)</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			tggtttctatcatgtttagacacgggtattgtcccatggtttgcattcaga aatgtgttagcatcaacaatcttccattggtaattttgaattaaaatgattt ttaaattggggcatctgggtggctcagtggctaagtctgcgcctcggtt cttaagtcatgatctcggttcctaggatgga (SEQ ID NO: 145)
C32	HSP27	U19368	ggaccctttccgcactggtacccggcccacagccgccttcgacca ggccttcgggctgccccggctccggaggagtggcgccatgggttcgg ccacagccggctggccggctacgtgcgcgcgcgcgcgcgcgcgcgc aggccccccgcggccgcgcgcgcgcgcgcgcgcgcgcgc gcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc gacggccgaccgctggcgctgtccctggacgtcaaccacttcggcc cgaggagctgcggtaagacgaaggacggcgtggtagataact ggcaaggcacgaagagaggcaggatgagcatggctacatcccccc gcctcactcccaaatacaccctggccctggatgttgatccatccctggc tcctccctccctgtccctggggcacttcacggtgaggctccatggc caagccagccacccagtcggcagaaatca (SEQ ID NO: 146)
C33	IL-10	U33843	cgggtccctgctggaggacttaagagttacctgggtgccaagccctgt cgagatgatccatgttactggaggaggatgtgcggggctgagaa ccacgaccagacataagaaccacgtgaactccctggagagaag ctcaagaccctcaggctgagactggctgcgcgcgcgc ttccctgtgagaataagagcaaggccgtggagcaggatgaaagagcgc attttagtaagctcaggagaaaagggtgtcataaagccatgagttagt gacatcttcatcaactacatagaaaacctacatgacaatgaggataaa atctgaaacgtgctggagaacaaaacacccaggatggcaacttc gactctaggacatgaaattggagatctgcaaaataccatcccgagatgt ggagagccgaccaactgctggagaaccccgatcacc (SEQ ID NO: 147)
C34	caveolin-1	U47060	tccgaggggcaccttacaccgttccatccggggcaggcaacat ctacaagcccaacaacaaggccatggcgaggagatgagcggaa gcagggtacgcacgcgcacccaaggaaatgcacccatggcaaccgc gaccggcaaggcatctcaacgcacgcgtggtaagatgttttgaagatg tgattgcagaaccagaaggaacacacagtttgcattggcatctggagg ccagcttcaccacccatgtgacaaaactgtttaccgcgtgtc tgccctttggcatccaaatggcactcatatgggcatttttgcatttgc ttcttcctgcacatctggcagtgtgcgtgcattaaagatgtttccatgtt agattcagtgcacatgcgtgttgcatttcacgtccacaccctgtga cccgatcttgaggctgtggcaa (SEQ ID NO: 148)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			tctccaaacaaaacataaagtcatctcgaaatccagctgccaaaaga ccctaccaaacacttcacctgacacacaca (SEQ ID NO: 152)
C39	APO CII	M17177	ctggttctgttgtccctgttggatttgagggtccaggggccc atagatcccagcaagatgaaaccaccagctccgcctgctcacccag atcgaggaatcactctacagttactggggcacagccagatcgctgcc gaggaccgtacaagaaggcataccaaactaccatggatgaaaaat cagggacatacagcaaaagcacagcagctgtgagcacttacgca gggatttcactgacc (SEQ ID NO: 153)
C40	endothelin-2	X57038	ctgtccgcctctgtccccctgtgcgcacgcaggcaaggccaggtagc cgctccccggagcatccagcaccctcagccggccgaggctccc acctgcggcctcggcgttgctctgcagctctggctgacaaggatg cgtctacttctgcacccgttgcacatcatctggtaacactccgggtgag ctcccgccccgaccaggcgggctgttagaggccccggcaggggg tggggaaacctgttagctagcacagctccctggctccagacggatc gctgagctgacatgaagagcggctgggttgtccctactcc (SEQ ID NO: 154)
C41	FGFR2	AF211257	tgattgtctctgcccacaaaatccaggtagtaaacaacccatcgata ggaaaagtattttgtgtgcagctgtcatggccatggagcgcg gaactggacttccaagacaaaatggtagccaggcggtctttaaaaagatg ccttaatccattccctcgaggggtggacccttagttgagatgatagcagactgt actccccccggcagctggcctctgcctgagttgcacgttaatcagatt agccgttattctctcagttgatgtataatggctccagattcatggcgtt agggaaaggcttttagaatctcacgttcacgtcgaaatgaaacactg agttgttctgtgtgtttggagatactccattttaagggttgtctgt tctaattctggcaggaccctcaccaaaagatcggcctgtaccaacgtc agacacgtgtccgtgtgtcggttgcgttgcgttgcgttgcgttgcgtt (SEQ ID NO: 155)
C42	leptin	AB020986	gccttaccctcagggacccctgcattccagatggtaaaaatgcacacac cagtagccaaaggctggcctgcaccatggcaactgagcagcgtgaac cagcgcactccctcagcaggcgaaatgtgaactgagaatgtcgt ctcaggggcccacaggctaacccctgcctccacttcgttagcattttgc cagggcacggcagcatttactgttagccacatccctgtgaagcag cagcatagctgacaattaaaataagaactaagaacacataacagac cataacggcagacaaggtagcagggccgagactagagttcaggacct ctgactcccagagtgtcccccggaggccaggtaatgtccctggagggtgc aaatagggtggcaggggagaccagaaggtaatgttacaggagagag gactggagggtatttgcaggagggtgagggtgaggtaatgcctgaatgg

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			cggaggctgtttgtcatgc (SEQ ID NO: 156)
C43	prostaglandin D synthase	AB026988	aggtgtccctgcagccaaacttcaacaggataagtccggggcgctg gttcacccggggcctccaaactcgagctgtttccggagaagaa gaacgtgtccatgttatgtcagtgtggccccgaccgcagacgg aggcctaaccctcacccacccatccctcaggaaagaccagtgtgagac tcgaaccctgctctacggccggggaaacccccggctgctacagcta cacgagtccccactggggcagtaccacgcacgtgtgggtggtagcca ccaactacgaggagtacgcgttcttacaccgcaggcaggcaaaggc ctcggccaggactccatggccactcttacagccgcaccaggacc ccaaaggccgagataaaggagaaaattcagcaccttgccaagaccc agggcttcacagaggatgccattgttccctgcccacagactgataatg catggaggagaacaagttaggtgaccgcgc (SEQ ID NO: 157)
C44	paraoxonase2 (PON2)	L48515	caggactccacagttttcccccagataagcctggagggatattaatgat ggatctaaaaaggaaaaccgcaggggcactgaaattaagaatcagc cgtgggtcaattggctcgtaatccacatggtatcagcacccatcatag acagcgacgacacagttatcttttgttaaccatccagaattcaag aatacagtggaaattttaaatttgaagaagaagaaaattcttctgcatt ctaaaaacaatcaaacatgaacttccaaatgtgtatcatgcatt tgtggaccacatttctatgccaccaatgaccactattctgtatcatt tcttaaatgtttggaaacatactgaacttacactggcaatgtgttta ctacagtccagatgaagttaaagtggtagcagaagggttgatgcagc aatggatcaatatttcc (SEQ ID NO: 158)
C45	beta-glucuronidase	AF019759	cgccgtatgtggacgtcatctgtcaacagttactacttggtatcag actatgggcacatggagggtattcagctgcagctggccaccggagttga gaactggataggacccatccagaaaaccaataatccagagcggatc ggcagagacaattgcaggctccaccaggatccaccctgtatgttgc tgaggagatccagaaaggctgtctcgagcgtatacttggctggat cagaaacgc当地atgtggttggagagcgtatctgtatatttgc atttatgactgaccatgcaccacagagagcgtatggaaacagaaag ggcatcttcactcgccagagacaacccaaagcggccgccttcatttgc gagagaggactggaaaacttgcattgtggaaaacagccgttcgcctctgaag cgccggcaagtccctgtttggaaaacagccgttcgcctctgaag cctctgtct (SEQ ID NO: 159)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C46	caveolin-2	AF039223	ttccagggtgggcttcgaggacgtgatcgccggacgcgcgttctacgcact cctttgacaaagtgtggatttcagccatgccctgttgaggtcagcaagt acgtgatcacaagttcctgcgttgctcctggcgatgccatggccttcg ccgcagggttcttcgcaccctcagtcgcgcacatctggattata atgccttcgtgaagacgtcgcctcatgttcgcgttgccatggcggcata tggaaagagtgtaacagatgtgtcattgcggccgtgttcaagtgttagg acgcagttcttcgtcagctgcaagtgagtcacgactgagcacttgg acccca (SEQ ID NO: 160)
C47	matrix metalloproteinase-14	AF032025	ttctcaaaggagacaagcacgtgggttgtatgaagcttcttgcaccc ggctaccccaagcacatcaaggagctggccgaggactgcctactga caaaaatcgatgtcgtctctgtatgcggccatggaaagacacttctt ccggggaaacaagtattacgttcaacgaggaactcaggcagtgg acagcgagtacccaaaaacatcaaggctggaaaggaaatccctga gtctcccagagggtcattcatggcagtgtatgcgttcaacttcta caaggggaacaaatactggaaattcaacaaccagaagctgaaggta gagccaggctt (SEQ ID NO: 161)
C48	matrix metalloproteinase-9	AB006421	gattctccaaggcaaggacgcgggtgcaggccccctttatcac cgagcacgtggcgtgcgtcccccaagctggactccgccttgg acgggctcaccaagaagacttcttctctggcgccaaatgtgggt tacacaggcacgtcggttgcggccgaggcgctggacaagctgg cctggggccggagggttacccaagtgcacccgcgcctcccgcaagcg gggttaagggtgtgttgcggcagggcagcgcgttgcggatgttgcacgtg aagacgcagaccgtggatcccaggagggcgccgcgttgcggaaacag atgtaccccggttgccttgcacacgcgtacatctccagttacca agaaaaggctacttgcgcaggaccgccttactggcggtgtgaattctcg aatgaggtgaaccagggtggacgaagtggctacgtga (SEQ ID NO: 162)
C49	IL-8	U10308	gtggcccacattgtgaaaactcagaaatcattgtaaagctttcaatgg aatgagggtgtgcgtggaccccaaggaaaaatgggtacaaaagggt gcagatattctaaagaaggctgagaaacaagatccgtgaaacaaca aacacattctgtgtttccaaagaattctcaggaaagatgccaatgag actcaaaaaatcttctgtacttgcgttgcgttagacccgttgc gattgccagataaaaatcagtatgcgcaggtagattgtatattaa aaacaatgtatgttttctaaatgttgcgttgcgttagatatt aggcacacttacattaaacatatttgcgttgcgttgcgttgc gctggaaatccgttatattttgttgcgttgcgttgcgttgcgttgc ggccaggatgcgttgcgttgcgttgcgttgcgttgcgttgcgttgc (SEQ ID NO: 163)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C50	keratinocyte growth factor	U80800	<pre> caatgacatgactccagagcaaatggctacaatgtgaactgttccag ccctgagcgacatacaagaagtatgattacatggaaaggagggatat aagagtgagaagactctctgtcaaacacagtggtatctgaggattat aaacgaggcaaaatcaaaagggacccaagagatgaagaacacgtttac aatatcatggaaatcaggacagtggcagttggaaatgtggcaatcaaa gggtggaaaatgtgaatattatctgtcaatgaataaggaaaggaaagctt atgcaaaaagaatgtcaatgaagattgcacatcaaaagaattaattct ggaaaaccattacaacacatatgcacatcataatggacacacagcg gaggagaaaatgtttgtcttaatcaaaagggggttcctgtaaaggggg aaaaaaaaacgaagaaagaacaaaaacagcccactttcctatggcaaa aa (SEQ ID NO: 164) </pre>
C51	decorin	U83141	<pre> gattaaaaatggagccctccagggaaatgaagaagctctctatccgc attgctgataccatataactaccatccctcaaggcttcctcccttcac tgaattacatctgtcaaggcaacaaaatccaagggtatgcacatctgc ctgaaaggactgaataattggctaagtggactgagtttaacagcat ctccgcgttgcataatggcactctagccacactcctcatctgagggag cttcactggacaacaataagctcatcagagtacccggfggcgtggcgg gagcataagtacatccagggttctaccctcataacaacaatatactgc agtccggatctaattgacttctgcccacctggataacaacacaaaaaggct tcttattcagggtgtggccttcagcaacccagtgcagttactggagatc cagccatccacccctccgggtgtctacgtgcgcctgcacatccagcttgg aattat (SEQ ID NO: 165) </pre>
C52	glucose-6-phosphatase	U91844	<pre> ctggggatctcagctgcaggatttctacctgtcccatccttacaagaaaa gggaaaggagcagtggcatttgatagagaagaagaatggattaagg aaagacttctcgatccgtatcatcatgcacaaattcatgttacacaaaatct aaatcgcttgcattatatttgcatttttagtaaggactctcaatagtgggg gaccaacttaaggcataactaataggttagttatggggtaattctgcctct tctatgtttctactatgtattcagtgacttagtttgtctgggtcagagcatt cagatatagtcagcttcctatcacactacatccctccgtcagcctag ctcagcttccctagaacttccactgtctacatcgtgcacacagaga tgcctaaaggcagcttagggtagtgctttgtatggtttagtcaagctcg aaatctggggcaaaaagggtgaggagaggcaaggagaggaaagg at (SEQ ID NO: 166) </pre>
C53	TGFB1	L34956	<pre> gacccttcctgctcctcatggccacccactggagagggcccgacc tgcacagctccggcagcgcggccctggacaccaactactgctca gctccacggagaagaactgctgcgtccggcagctctacattgacttcg caaggatctggcgtgaagtggatccatgagcccaagggttaccacg ctaacttcgtcgtggggccctacattggagccctggacacgcga </pre>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			agtctgcaagaaaactacattcagtcttgaccaggatgccgaagatgaa ctttgc当地 (SEQ ID NO: 171)

Please substitute **TABLE 3 50-mer target sequence for canine arrays** with **TABLE 3 50-mer target sequence for canine arrays**, amended as follows:

TABLE 3 50-mer target sequence for canine arrays

ID#	Gene Name	GenBank Accession Number	50-mer sequence
C58	Cytochrome P450 2D	D17397	ccggctccctcagcaggcccggaggtacaat aaaccagtttgtggctcc (SEQ ID NO:172)
C59	Cytochrome P450 2B	M92447	aactcaaataaacatcaaaaggcctgacatcc cctggtcagggtggtagcc (SEQ ID NO:173)
C60	Cytochrome P450 2C41	AF016248	ccagtgaacatccaacctccattaaaggaaa gtctccagaattctttgc (SEQ ID NO:174)
C61	Cytochrome P450 2C21	AF049909	tatctctgcctctctgtgtgtgtctcatgaa taaataaaatctt (SEQ ID NO: 175)
C62	Cytochrome P450 3A	X54915	gtgacacagaatgagaaaactctaactctggg aaatgtacaagggatagt (SEQ ID NO: 176)

Please substitute **Table 6** with **Table 6** amended as follows:

Table 6

ID #	Gene Name	Left PCR primer sequence	Right PCR primer sequence	Target Sequence on canine array
C64	Gadd45	AACTGA ACCAAA TTGCACT GAA (SEQ ID NO: 177)	CCATG TAGCG ACTTT CCCG (SEQ ID NO: 178)	CGCGTCTAGAAACTGAACCAAATTGCACTGAA GTTTGAAATACCTTGTAGTTACTCAAGCAGT TACTCCCCACACTGATGCAAGGATTACAGAAA CTGATGTCAAGGGCTGAGTGAAGTCAACTAC AGATTCCGGGGGCCGGAGCTAGATGACTITG CAGATGAAAGAGGTGAAAATGAAGAAGGAA GCTATGTTGAAACAAATAACAAGTCAAAAGGAA CAAAAATTACAAAGAACCATGCAGGAAGAAG CTTGGCC (SEQ ID NO: 179)
C65	Super- oxide dismu-tase Mn	AACAAAC CTGAAC GTCACC GA (SEQ ID NO: 180)	TCTCC CAGTT GATTA CATTC CAAA (SEQ ID NO: 181)	GCGCGAATTCAACAAACCTGAACGTCACCGAGG AGAAGTATCTGGAGGCCTGGAGAAGGGTGAC ATTACAGCTCAGATAGCTCTCAGCCTGGGCTC AAGTTCAATGGAGGAGGTCAATCAATCATTC CATCTTCTGGACAAACCTGAGCCCTAAGGGTG GTGGAGAACCAAAAGGGATTGCTGGAAGC CATCAAACGTGATTTGGTTCTTCGACAAATT TAAGGAGAAGTTGACCACTATATCCGTCGGTG TCCAAGGGCTCAGGTTGGGTTGGCTTGGTTCA ATAAGGAGCAGGGACGCTTCAGATTGCTGCT TGTGTTAACAGGATCCCCTGCAAGGAACAAAC AGGTCTTATTCCACTACTGGGATCGATGTG GGAGCATGCTTATTACCTTCAGTATAAAATGT CAGACGGATTATCTAAAGCTATTGGAATG TAATCAACTGGGAGAAAGCTTGGCC (SEQ ID NO: 182)
C66	UV Excision repair protein RAD23 (XP-C)	GAAAGT CAGGCT GTGGTTG A (SEQ ID NO: 183)	TGGCA GCCAA ATTCT CATTC (SEQ ID NO: 184)	CGGGGATCCGAAAGTCAGGCTGTGGTTGACA CCCCTCCCGCAGTCAGCACTGGGCTCCTCCAT CTTCGGTGGCAGCTGCTGCAGCAACTACAACA GCGTCAACAACCACAGCGAGTCCTGGAGGACA TCCCCTGAATTTCAGGAATCAGCCTCAATT TCAACAGATGAGACAAATTATTCAACAGAAC CTTCCCTGCTCCCAGCATTGCTACAACAGATAG GTCGAGAAAATCTCAATTACTGCAGCAAATT AGCCAGCACCAAGGAGCATTTATTCAAGATGTT AAATGAACCAAGTCAAGAAGCTGGTGGTCAAG GAGGAGGGGGTGGAGGTGGCAGTGGAGGAAT TGCAGAACCGGAAGTGGTCAATGAACTACA TTCAAGTAACACCTCAGGAAAAAGAAGCTATA GAAAGGTTAAAGGCACTAGGATTCTCTGAAGG ACTTGTGATACAAGCGTATATTGCTTGTGAGA AGAATGAGAATTGGCTGCCAAGCTTGGCC (SEQ ID NO: 185)

C67	Proliferating cell nuclear antigen gene	GATAAC GCGGAT ACCTGG C (SEQ ID NO: 186)	AGTGT CCCAT ATCCG CAATT TT (SEQ ID NO: 187)	GGCGGGATCCGATAACGCGGATAACCTTGGCGC TGGTATTGAAGCACCAAGAACAGGAGTACAG CTGTGTAGTAAAGATGCCCTCTGGTGAATTGC ACGTATATGCCGAGATCTCAGCCATATTGGAG ATGCTGTTGTAATTCTGTGCAAAAGACGGA GTGAAATTCTCGAGTGGAGAACCTTGGAAA TGGAAACATTAATTGTACGGACAAGTAATG TCGATAAAGAGGAGGAAGCTTACCATAGAG ATGAATGAACCAGTTCAACTAACCTTGCACTG AGGTACCTGAACCTCTTACAAAAGCCACTCC ACTCTCTCAACGGTGACACTCAGTATGTCTGC AGATGTACCCCTGTTAGAGTATAAAATTGC GGATATGGGACACTAAGCTTGGCC (SEQ ID NO: 188)
C68	Glucose-regulated protein 94	CTGTGGT GTCTCTG CGCCT (SEQ ID NO: 189)	TTTCA GCTGT AGATT CCTT GCTG (SEQ ID NO: 190)	CGCGGGATCCCTGTGGTGTCTCAGGCCGTGAC AGAGTCTCCGTGTGCTCTGGTGGCCAGCCAGT ATGGATGGTCTGGCAACATGGAGAGAACATG AAAGCTCAAGCATACCAGACGGCAAAGACAT CTCTACAAATTACTATGCCAGCCAAAAGAAAA CATTGAAATTAAATCCCAGACATCCCCTGATCA AAGACATGCTTCGACGAGTTAAGGAAGATGAG GATGACAAAACGGTATCGGATCTGCTGTGGT TTTGTGAGACAGCAACGCTGAGATCAGGCT ATCTGCTACCAAGACACTAAAGCATATGGAGAT CGAATAGAAAGAATGCTCGCCTCAGTTAAA CATTGACCTGTGCAAAGGTGGAAGAAGAAC CAGAAGAAGAACCGAAGAGACAAACCGAGGA CACCACAGAAGACACAGAGCAGGACGATGAA GAAGAAATGGATGCGAGGAACAGACGACGAAG AACAAAGAAACAGCAAAGGAATCTACAGCTGA AAAAGCTTGGCC (SEQ ID NO: 191)
C69	Glutathione S-transferase alpha subunit	CAGAGA AGCCA AGCTCC AC (SEQ ID NO: 192)	ACCAG ATGAA TGTCA GCCCG (SEQ ID NO: 193)	CGCGGGATCCCAGAGAACCCAAAGCTCCACTA CTTCAATGGACGAGGCAGAACATGGAGTCCATCC GGTGGCTCCTGGCTTCAGCTGGAGTAGAGTT GAAGAGAAATTATAAATGCTCCAGAAGACTT GGATAAATTAAAAATGATGGAAGTCTGATGT TCCAGCAAGTGCCTGGAAATTGATGGA ATGAAGCTGGTACAGACCAAGAGCCATTCTCAA CTACATTGCCACCAAATACAACCTCTATGGGA AAGACATAAAGGAGAGAGCTCTGATAGATATG TACACAGAAGGTATAGTAGATTGAATGAAAT GATCATGGTTTGCCCTATGCCACCTGATCA AAAAGATGCCAAGATTACTCTGATCAGAGAGA GAACAAACAGATCGTTATCTCCCCGTGTTGAA AAAGTGTAAAGAGCCATGGACAAGACTACCT TGTGGCAACAAGCTGAGCCGGCTGACATTC ATCTGGTCTCGAGGGCC (SEQ ID NO: 194)
C70	BR-	GTCCGTG	CACCG	GTCCGTGGCAGAGTCCCTCAGCTCTATAGACTC

	cadherin	GCAGAG TCCCTCA GCTCTAT (SEQ ID NO: 192)	TGATG CCACA TAGCT ATCTT CG (SEQ ID NO: 196)	TCTCACACAGAGGCTGACCAGGACTACGACT ATCTGACAGACTGGGAACCCGCTTAAAGTC TTGGCAGACATGTTGGGAAGAAGAGAGTTA TAACCCGTATAAAGTCACTTAGGGCAGAACCC AAGGATAAAACACAACAAAGGAGAAATT AAAAGAAACACAAATAGAAATCTCTCTCTC ACACACACACATGCATACATGCACGTGCAC ACACAGACACAGACACACACACCAGGCTT GTAGGACACAATCATTGATGATCTGGTTCTA GCAAGTTGCTGTAGTTATCATATTGCAAGTTT TGTTTACTCTGCCAACACAAGATAAAATCCTAT TACATGTACTTGCTGGTTTGTGTTCTTT GGATACACACTGAGACAAGCTCAGGCCTATTA AATACAATTACTGACATGACAACATAGAACG AAGATAGCTATTGGCATCACGGTG (SEQ ID NO: 197)
C71	N- cadherin	GGAGCC TGATGCC ATCAAG CCTG (SEQ ID NO: 198)	GGTTT GCAGC CTATG CCAAA GCC (SEQ ID NO: 199)	GGAGCCTGATGCCATCAAGCCTGTAGGAATCC GACGATTGGATGAGAGACCCATCCACGCCGAA CCCCAGTACCCGGNCCGATCTGCAGCCCCGCA CCCTGGGGACATGGGGACTTCATTAATGAGG GCCTTAAAGCTGCTGACAATGATCCCACAGCT CCACCATATGACTCCCTCTTAGTCTTGACTAC GAAGGCAGTGGCTCTACCGCTGGGTCTTGAG CTCCCTTAATTCTCAAGTAGTGGTGGCGAGCA GGACTATGACTACCTGAACGACTGGGGCCAC GGTCAAGAAACTGCTGACATGTATGGTCCA GGTGTGACTGAACTTCAGGGTGAACCTGGTC TTTGGACAAGTACAAACAATTCAACTGATAT TCCCCAAAAGCATTCAAGACTAGGCTTAAC TTTGTAGCTACTAGCACAGTGCTTGAGG CTTGGCATAGGCTGCAAACC (SEQ ID NO: 200)
C72	Mek5	TCATGG ATGGGG GATCTTT GGATG (SEQ ID NO: 201)	GGGTG GCCCA TCAAT TCTTC AGGT (SEQ ID NO: 202)	GGGTGGCCCCTCAATTCTCAGGTGCTGGTCTT TCTTCGGTTGTTTCGCATGCACTGAGTGATG AAATGTACAAATGGCTGGAGAACTCTCCAAC CGGAAGGACGGCGAATCCTCATCAACAAATGC ACTGCAGAACCTGGAGAGGGCTCCATGAAAGAG ATTCCCTAAACTCCGGACATCAGAAATGGATTCC ATACTGCTCCCTGAAATTCTTCAGGCGCCAT ATAAGCATTGTTCCAACATACGTCTGGCTAT AGAATTCCACAGCTGAGTGCTAACTCCAAAAT CGCACAGCTGACCTGCTCTTGTGTTACTA GCGTATTGGAGGGCTTCACATCTCTATGTAAA ATCTTAAACTCCACAAGTAGGTAAGGCCTTA ACAAC TGCTATTGCAATTCTCCAAGGACATGC TCTGGAATTCTATATACATCCAAAGATCCC CCATCCATGA (SEQ ID NO: 203)
C73	Glucose transpor- ter	GCAGCA GCCTGTG TATGCCA CC (SEQ ID	AAGCC GGAA GCGAT CTCAT CGAA	AAGCCGGAAGCGATCTCATCGAAGGTCCGGCC TTGGTCTCAGGAACCTTGAAAGTAGGTGAAGA TGAAGAACAGAACCAAGAGCAGCGGTGAAGAT GATGAAGACGTACGGACACACAGTTGCTCTA CATACTGGAAGCACATGCCACAAATGAAATT GAGGTCCAGTTGGAGAAGCCAGCAACAGCAAT

		NO: 204)	(SEQ ID NO: 205)	GGCAGCTGGCGAGGACCCTGGCTGAGGAGTT CAGCCACAATGAACCATGGGATGGGCCAGGG CCCACTCAAAGAAGGCCACAAAGCCAAGAT GGCCACGATGCTGAGATAACGACATCCAGGGCA GTTGTTCAGCAGGCCAGCGCATGGTCATG AGCACGGCACAGCCCACATGCCAGCCAGGCC TATGAGGTGCAGGGTCCGCCGGCGCGTT CCACCACGAACAGCGACACCACGGTAAGGCC GTGTTACGATGCCGGAGCCGATGGTGGCATA CACAGGCTGCTGC (SEQ ID NO: 206)
C74	SHB (Src homology 2 protein)	CGCCGA TGAGTA CGACCA GCCTT (SEQ ID NO: 207)	GCTCA GCCCC TTTGA TGGGT AGC (SEQ ID NO: 208)	CGCCGATGAGTACGACCAGCCTGGGAGTGGAA ACCGGGTCACCATCCCAGCTCTGGCAGCCCAG TTAATGGCAACGAGAAACGGCAATCATCCCC CTCTCCTCCCAGGCCAGCGGGCCAGCTCG AGCTCTGGAGGGGCTCAAGCCCATTAAAGC ATGGGAGCCCTGAGTTCTGTGGGATCTTGGGA GAAAGAGTGGATCTGCTGTCCCCTGGAAAAA GCAAATCTGGTATCACGGAGCCATCAGCAGAG GAGATGCTGAGAACCTTCTGCGGCTCTGCAAG GAGTGCAGCTACCTTGTCCGGAACAGCCAGAC AAGCAAGCAGCACTATTCCCTCTCTTGAAGA GCAACCAGGGCTTATGCACATGAAACTGGCC AAAACCAAAGAGAAGTATGTTCTGGGTAGAA CAGCCCCCGTTGACAGTGTCCCAGAAGTCA TCCACTACTATACCACCAGAAAGCTACCCATC AAAGGGGCTGAGC (SEQ ID NO: 209)
C75	Ear-3 (v-erbA related) or Apolipoprotein AI regulatory protein (ARP-1)	TGCAGA TCACCG ACCAGG TGTCC (SEQ ID NO: 210)	CATAT CGCGG ATGAG AGTTT CGATG G (SEQ ID NO: 211)	TGCAGATCACCCGACCAGGTGTCCTGCTTCGC CTCACCTGGAGCGAGCTGTTGTGCTGAATGC AGCACAGTGCCTCATGCCCTCCACGTCGCC CGCTCCTGGCCGCCAGGCCTACACGCCCTCA CCCATGTCCGCCACCAGTGGTCCGCTTATG GACCACATACGGATCTTCCAAGAGAGCAAGTGGA GAAGCTCAAAGCGCTGCACGTCGACTCCGCC AGTACAGCTGTCTCAAGGCCATAGTCCTGTTCA CCTCAGATGCCTGTGGTCTCTGTGATGTAGCCC ATGTGGAAAGCTTGAGAAAAGTCCCAGTGT GCTTGGAAGAACGTTAGGAGGCCAGTACCC CAACCAACCAACACGATTGGAAAGCTTTAC TTGCGCTCCCTTCCCTCCGACGGTCTCCTCCT CAGTCATAGAGCAATTGTTTGTCCGTTGG TAGGTAAAACCCCATCGAAACTCTCATCCGC GATATG (SEQ ID NO: 212)

Please substitute **Table 7** with **Table 7** amended as follows:

Table 7

Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GAUTGAGACCATTATTCAAGACA CGCAGCTGACCAAGGAGTGAGGG AGGGACCAGGTGTCAAGCTAAT AAATAGAGGAGGGGGAGACTTCC TGGAGCTGTAGCCATTCACTCTTC ATTCTTCTCAGGCATGAAGGCATC TCTTTCTGACCAAAGCTT (SEQ ID NO: 213)
CTP1G	No significant match		AAGCTTGGTCAGCAATTATATTA GTTTGATTTAGTGACAGGGTGA AGAGAAAGGCCCTTCTCCCTTA CTGGGACAAATCTAGAAATCTTAC ACAGATGTGCAAATAAGCTCGCG TGGTGTTC (SEQ ID NO: 214)
CTP3B	Homo Sapien N-myc downstream regulated (NDRG1)	BC003175	GCAAAGTTACAAATTATTGGTCT GGAAATAAACAAATATCTGATTA AGAAACTCTCTGGAAAGACTTGT ACACAACAGTTTCTGTCTCGAT TCAGCCACTCCTGCCCTGACCAA GCTT (SEQ ID NO: 215)
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACCCAC GAAGTTGTTTAAGGTTACAGCTA TGAATAAACATTGTCCAACAAATG AAGATTAGGGCTGAAGAACGAG CGTATGTCTACAGTCGAAGCTT (SEQ ID NO: 216)
CTP7B	No significant match		CAGGTGCAAGAGGTTGTTGGG AGGTAACTCTAGAAACCACAGAAG GGGGTGGGGATAGGAGGGATGG CAGGAAAACCAGTAAGAACTGTGT TATTGAGAAGGTTATCACTGTGGA CAACTGGCACAGAATACACTTCAG AGCTGTCGCCCTGAGGGACAATG ACGCCAAGGTCTTTCTCTAAGT CCTGTTCTTATAGGCCGAGGGTG GCTCCTGGGAGCAGTAACTGCCA ACAGTCGAAGCTT (SEQ ID NO: 217)

CTP8A	No significant match		AAGCTTGATTGCCCATACCTGAGC CATTGATATATTGAAAATTATGGC ACAAATGGAAGAGAACACATTG AAAAGCTTCAGCCTTCAACAGA AGATAACTCTTCTGTTTGAGAT TGAGCAGATAATTCTTTGAAGG TGATAGTTCTAAATTGGATAAAA CCGTGGCTGCCATTATATTACAG AAAATAAAATGAAAACCTCAGTTAA TTGTGGATTG (SEQ ID NO: 218)
CTP8C	Human DNA sequence from clone RP4-734P14 on chromosome 20	HSJ734P14	CAATATTCTTAAGAGTTATTATAA ACTAGTTCACAGGCCTACAAGGAA GTATTTAGGACTATGTACAGCCTG ACGGGAAACAGGCAGGGAGCTGA GGAGGGCCAAGATGAGTCTAGGG CCTTGGTGGCGCATTCCCAGGG GAGGGGGCCCTGAAAGGGAAACC AGACAATCCTGTGAGACTCCAAGA ACAACGGCATAACAAACAAACACG TCTGTGGCAATCAAGCTT (SEQ ID NO: 219)
CTP10Y	Canis familiaris mitochondrion	CFU96639	AGTAGATGGGACCGAGAATAATT TAGGGTTAAGGGATAGGAGGAGT AGGGGCAGTAGGTGCAAGGTCA TAGGGCATTTCCTCGTGTGAATGA TGGTTGATATTGATATGGT GGAATATTACACGTTGTGGT GATTAATATATAAAGTGAGTATAG GGCGGTAAAAGCTT (SEQ ID NO: 220)
CTP11A	cyclin-dependent kinase inhibitor 1A (p21, Cip1),	BC001935	ACTAAGAAATATTATTGAGCACCT GCTGTGTACCCAGCACTGCAGGG GGGGCTGTGAGAGACCCAGGGCA GTACAGGACTTGTCTTGCCTTC AGAGGCTTATAGTCTAGGTGGAAA CAGGAGAACCAAGGACACATGAGG AGCCAGGAGAAAACAGTACAGGC CAGGATGTTACAGGAGCTTACAGT GTTTGGGTCAGACCCACTAAGT GCTTCAGTACCTCTAGGGGCTAA TGTTCAAGGGCCAGAAGAGACAATA ACTCACAACTAGCCATGTAGCAT GCCCTATCCACAGCGTCTACCTCT GCTATCTAAAACATCTGACTCCT CGTTAAGCTT (SEQ ID NO: 221)

CTP16B	Homo sapiens cDNA FLJ20541 fis, clone KAT11364	AK000548	CAAAGAATTTGTTTATTATAGTA CATGAGCTGGACTGATGGGAAAG GGTAGGTGTATGGCAACCACTG CCAGATTAGCATCGGATGCCAT CCGATGGCCATGAATGTGCCAA ATGTGCCGCCACTCTGCATCATGG TTTCCGATGCCGCCATCAGCT CCGACCCCCGCATTCCGATCCTG AGACAGGAAAAGGTGCCGAAGAG CGCCCCGGCCATGCCACTG CACAAACCCATCACAAAGCCCAC TCACGCGGTAAAAGCTT (SEQ ID NO: 222)
CTP17G	No significant match		CATATATATTCTTTTTATTTCTTGT TATACCTCCAAAACAGAGACAT TCAACAGTAGTTAGAATGGCCATC TCCCAACATTAAAAAAACTGCA CCCCCAATGGGTGAACAAAGTAA AGAGTAGTAACCTAGAGTTCACT GAGTAAGCCACTGTGGAGCCTAA GTGGTGAGGTCTTCCAATTTCAGA GTGATGTGTCTTCAACTTGATCA TCATTTAGCGGTAAAAGCTT (SEQ ID NO: 223)
CTP18B	No significant match		CCAAAGAAGTGTATTAAACATTG GGGCCTCAGCGGGGCCAGAGAG GAAGTGGGTGCTAGAGGCTCCTG AGGCTCAGGGCAAGGCCTGCAAG ACAGATCCCATTGCTCAGGAGGC AGCCCAGATTGCAAATGGAAGACA GG (SEQ ID NO: 224)
CTP19F	Homo sapiens chromosome 5 clone CTB-187A7	AC008651	AAGCTTTACCGCAATGAGGGATT TATACATGAAAAATGGACAAGGCT TTGCATTAGTTACTCCATCACAG CACAGTCTACATTAAATGATTACA AGATCTGAGAGAGCAGATTCTCG AGTTAAAGACACTGATGATGTAAG CTGACTTCTAATAAAATATTTTA CTTG (SEQ ID NO: 225)
CTP20B	Bos taurus ribosomal protein L30 mRNA	AF063243	AAGCTTAACGAGGACAGGCCATC AGGGCTGCCAGGAAGCAAAAAAA GGCTAACAAAGCATCTAAAAGAC AGCAATGGCTGCTGCTAAGGCTC CCACAAAGGCAGCACATAAGCAA AGATTGTGAAGCCTGTGAAGGTTT CCGCACCCCCGAGTTGGTAAAAAA CGCTAAGTTTAGTGGATCAGATT TTTAAATAAACATCTGACTCTAACT (SEQ ID NO: 226)

CTP21A	Rattus norvegicus ribosomal protein L31 (Rpl31),	NM_022506	CATGGAGCNGTTTATACCTTATT TGACAATCAGCGATTAGTTCTCAT CCACATTAACAGTCTGTAGATTTT GAAAGTGGTGACAGGTACGTAGG TAACCAGCGTAGAGGCTGTTG GTGAATCTTCATCCTCGTTAACGT T (SEQ ID NO: 227)
CTP22C	Canis familiaris mRNA for ubiquitin-ribosomal protein L40, fusion	AJ388512	CAATGGTGTCACTGGGCTCGACC TCAAGGGTGATAGTTTGCCCCGC AGGGTCTCACAAAGATCTGCATC TCTGCGTCTGCTGGAGCGAACTC GCAAGGCCGCCACCAAACCG CTCGCCCACCTCGTTAACGCTT (SEQ ID NO: 228)
CTP25D	No significant match		AAGCTTGACCATATATATAACTCT TGGCAGAGGGTCTGGCATAACAT AAGTAGATACTCAGAAATATCTGT TGGATTGTGTTGATTAAATTATTT TGTGTTGCTCTTTAAAGATGAG CACTTCTATTAGATATTTTTGA TCAAAAAAAAGATATTTTTGATC ATACAGATTAAGCAGGATTTTAT TAATTGTTCTCTTCTGGTTGG (SEQ ID NO: 229)
CTP26A	Canis familiaris chymase gene	U89607	CATGAGAGAGACGGAAAGAGAGG CAGAGACACAGGCAGAGAGAGAA GCAGGCTCCATGCAGGGAGCCTG ACGAGGGACTCGATCCCAAGACT CCAAGATCGTACCCCTGGGCCAAA GGCAGGAGCTTAACCGCTGAGCC ACCCAGGTGTCCCACTGTCAGG GTTTTAAAGAGTGAAGTGAATT GGGGAAATATCAAGGCACAGTCAT ATTATAAACATAATACGTTGAGAA GCTT (SEQ ID NO: 230)
CTP26B	H.sapiens cycA gene for cyclin A	X68303	AAGCTTCTCAACGTATATGGTGTA CAGTTTTGTAAGGTTTAATTAA CAATCATTCTGAATAGTTATGGTC AAGTACAAATTATGGTATCTATTAC TTTTAAATGGTTTAATTGTATAT CTTTGTACATGTAACATCTTAGT TATTGGCTAATTAAAGTGGTTT GTTAAAGTATTAATGATGCCACCT GTCAGCACAATAAGAGTAAGAACT AATAATGGATTGG (SEQ ID NO: 231)

CTP27C	Homo sapiens CTCL tumor antigen se20-10 mRNA	AF177227	AAGCTTCTCAACGTATTCAAGAGA AAACTTCTAAATTGCCAGATATGTT AAAAGACCATTATCCATGTGTGTC TTCACTGGAGCAGTTAACAGAGTT GGGAGGTGAAACTGATGTTTGTT ATGCCGTCCTAACACAGCCCTATG CCCGATGTACTCAGAGACTGGAA CAGCACAAAGAGAAATAAAGCAACA ATCAGTAATGGG (SEQ ID NO: 232)
CTP28D	Homo sapiens upstream binding protein 1 (LBP-1a) (UBP1)	NM_014517	AAGCTTGGTCAGGCAGGAATAG GAATGAGTAATTGGGCTTGAAA TCTCTCCCAGAAGACAAACTACTT CGATGGGAAAAAGCTTGACATT TGTGTTTATTGTAGAGGGGTT ATTGGATACAGAGGAGCCTGGTCT CATACATTTCATCTTCAGTCGAA AAGATCTGTAATTCTGTAGACCCCT GAAGCGGGGGAACTTTCTTCTG CCATCTCCCTTGCTTCATATGAA CACCTCTTCTGTACCAATCATTG GAAAAGAAGTGAGCATATCTCTG TTTAAAAGTTTGCTGNCTGGTT AGCATTCCCTTGAGCTAACATA TATGGAACAATAATGTCATTTAAT GCTGNGNGCTATTTGAATTCTC ATCAGGTTTAGAAGTGGGGCAA GAACACTAAAAGCTCATTGGACT TTGAAATTATNCCAGCCGCCNTG ACCATTATCTGGCCCANCAAAGCA GGTTAAATTATGGCNCCNGCAAAT TTGCTTTTTTTAATAGNNGGAN GNNTACNTTCAGNTTAATAATG TTTCCGATGGTTGC (SEQ ID NO: 233)

CTP30E	Homo sapiens BAC clone CTB-60N22 from 7q21	AC003083	GGTCAAAGTGTATAGTTTGACTT ACCCCTCCCAGATCCTGAATGTCC TTTGGAGTTTCAGATAACGGTG ACAGAAGGTAAGTCAATGTAAAAT ATTTTCCCCAGAGTGGCTATATT TGTATTTCTGGTTTGTATCAGT TTTCATAGATTCATAGATCTGTT TTTCATTTGACTTGGATTCCAC CTGTTGTTAAAAAAAGTAGAACATCA GATCATGATTTATGTGGACAGAAA ATTCCTCTTTAAAAACTTTTAT ACAGTCATCATTCTAGAGGGGG AAAAAAATCTTTATAATACCACCAAT TAAACACTCAATAGCATTACTGT ATTCCTCGTAGTATCACTTAGGAT AAAACCAGAATACCATATTGTTT AACAGATCCCATACTGTAAAATAA TCATCGTTCACAGCCTACAGTCGA AGCTT (SEQ ID NO: 234)
CTP31A	No significant match		GGGGCAGATAAAAACACTTAATGT AAAATTTACCCCTCTCAGAAAAATT CCAGTATGCTATACGGTATCACTA ACTATAGTCACTATAGTATACAGTA GATCCCTAGGATTATTATGATG TACAGTCGAAGCTT (SEQ ID NO: 235)
CTP32D	cDNA FLJ14795 fis, clone NT2RP4001219	AK027701	AAGCTTGATTGCCAGAGTTACGAA AAGCATCAAAGCATCTTATGGTC AGCTTAAATTGGTACACTAGATT GTACAATTCTAGAGGGACTCTGTA ACATGTATAACATTCAAGGTTATC CAACAATAGTGGTGTCAACCAGT CCAACGTTCATGAATACGAAGGCC ATCACTCTGCTGAACAGATCTGG AATTCTAGAGGACCTTATGAATC CTTCAGTGATCTCCCTGACACCCA CCACTTTCAATGAACTGGTAAAC AGAGAAAACATGACCAAGTCTGGA TGGTTGATTCTATTCTCCATGGT GTCATCCATGTCAAGTCCTAATGC CAGAATGGAAAAGAATGGCCCGG ACATTAACTGGACTGATCAATGTG GGCAGCGTAGACTGCCAACAGTA TCATTCTTTGTGCCAAGAAAAT GTTCGGAGATCCCTGAGATAAGAA TTTACCCCCC (SEQ ID NO: 236)

CTP34A	Homo sapiens ribosomal protein S29	NM_001032	AAGCTTGGTCAGGGCTCTCGTTC TTGCCGCGTCTGTTCAAACCGGCA CGGTCTGATCCCAGAAATACGGC CTCAACATGTGCCGGCCAGTGTGTT CCGTCAGTACGCCAAGGATATAG GCTTCATTAAGTTGGATTAAGTGA ACTTCCTTGAATGGGTATCCAAG ATACCTACCTTAACTGCAGATGTC CAAGATACTTACTTGATGCCAAC TCATTGTATATAAAATAAAACT CCAATTATGAGTGTGTTAATGTG (SEQ ID NO: 237)
CTP36A	No significant match		CAAGTTTACCATGTTTAATTAT TGAAACAAAATTAACGTAAGTAGA ATCATGTGCAACAGTGTCTAAC ATATGGAAGAGGTAAATATGAATT TTATACAATAAGGTATATTATCCAC TGTAACAAATTCCAATAATTGGC ATTTATCTTCACAAAATGTCCTCC AAATTCTAAGCAAAGTATGCAAATT GGAGATTAACTCTAACAGGCATA ATTATCTCTTATCCAGTTTCTG AAGAGACTGAAGAGTTCAGGTCTG ACCAAAGCTT (SEQ ID NO: 238)
CTP37A	Homo sapiens nuclear factor associated with dsRNA NFAR-1	AF167569	CAGATGTGATAAAATGTTTCATT ACTGTCAAAGGCATCAACCAGATT TGGGAATTGTTAAAAGGTAAAA ATTCAACAAAACCTGCTGTAAATT AAGACAAAGGTAGATTAAAATGCA TCATTATCTGTCTCTTAAATAAAGT AATGCTTCCATAAAAGCAAAGG TGGGCTTTGCCTTGATGCTGACC AAAGCTT (SEQ ID NO: 239)
CTP41B	Homo sapiens mRNA for KIAA1392 protein	AB037813	GGGAAGTGTCAAGGATCAGTTCC GTGGCACCCCTCTGACCACAGACT GGGAGCAACACGCATCTGGCA TTTAAAATGGAATTGGCAACTTC ATGACATTGGAATGCATATCACAC TTACAGTGTCTAGACTTCCATGT GTGCTCAGTTACAAGTAGTGAAGC AAAAGTATACATATCACCCCTACT GCTATTGGTTGCTACAGAGCCAT AAATGTGAAAGCAAAACTCTGAA ATAAAGATTTGTTTTGCCCTA GCCTACTAAGCTT (SEQ ID NO: 240)

CTP47G	No significant match		AAGCTTGCACCATACTCCTCCTCT ACATATGCTCCCAAATTACCTTCTA AAAAGGCTGTATTAATTACTTC CCAGTAGTATTATGAGAGTCCCCA TGTCCTAGCCTTTAAAATTAC TATGAGCAATCTTAAATCATGTAC TAAATCTTATAGGCAAAGAATAGG GCCTGCCCCTGCCCTGTT (SEQ ID NO: 241)
CTP50A	No significant match		ATTCCTTTCCAAGGACCTCTCTT CTATGTGATCACTGAGTAAGTTCA GTCACTCCCACATCTCTAGATTG GAGATTTCCAATTATGGCCTT CCTAACTTGAAGTCCTTATTCTA ACTGCCTACTAAGCTT (SEQ ID NO: 242)
CTP51A	Homo sapiens intestinal N-acetylglucosamine-6-O-sulfotransferase	AF219991	ATAAAATAGAGATGGGGTCTTGCT ATGTTGCCAGGCTGGTCTTGA TCTGGGATCAAGCAATCTGCCTGC CTTGGCCTCCTAAAGTGTGGGAT TACAGGTGTGAGTCACTGTGCCTG GCCTCATATAGTCACTATAACAGC CTACTAAGCTT (SEQ ID NO: 243)
CTP52B	No significant match		AAGCTTAGTAGGCAATAATAGAGA AGTAGAAATTGAATGTGGAACATT AACCATTAaaaATCATACTTTGAA TGTGCTGAGGTATGAATTGTTT TACCTTCTTGAAATTGTGTTTT CAGATTTCTGTAGTTAGCATATAT TCTATAATCAGAAAAAGATGCTTC AAGTTTTTGAGATTCACAGAAAT TTTGT (SEQ ID NO: 244)
CTP53A	No significant match		AAACAAAATTCTGTGAAATCTGCA AAAAACTGAAGCATCTTTCTGA TTATAGAATATCTGCTAACTACAGA AAATCTGAAAAACACAAATTACAAA GAAGATAAAAACAATTATGACCT CAGCACATTCAAAGTATGATTTT AATGGTTAATGTTCCACATTCAATT TCTACTTCTCTATTATTGCCTACTA AGCTT (SEQ ID NO: 245)

CTP58A	No significant match		AATTGTCACGAACAGGGCTGACTG ACACTGCAGTGTGTCCTGTTGT TGATCCCTGATCTAGGCCTCGGCT TTTCAAAC TGCA GTT GATCAA ACT GGGATATGCTC GGCT GAAT CTGC TCTCTGGTGCTTCTCTTAATCGTT TTCTCCTTAAATGGGTTACTTCTT ACTAGGAAAAAAAATGTTCCAC CTCTGGAATT AACGTTGAGAAGCT T (SEQ ID NO: 246)
CTP59A	Homo sapiens cyclin D2 (CCND2)	XM_012143	AGGTCAAGGTGAGTTATTGTCCA AATAGCATAACCTAACATTGCATTCAA AACCATTTCAAATCCATCTTAAA CTAGTCAGAAAACAGGTTATTATTT TTTAAATCACTAACACTGAACAG ATAAGACCTCTTAAAGGCAGCTG ACTATATCATGTCACCACATAGC CAATACAACATTTGCCATACTTC CTAAAACCTTTCGCATACACTG ATCATGCTACTTATCAGCACTTTT AACATCCTGACCAAAGCTT (SEQ ID NO: 247)
CTP60B	Homo sapiens RNA binding motif, single stranded interacting protein 1 (RBMS1)	XM_016120	ACTAAAATAAACCTGTTGGGGGG AACAGCTACTAGATGAATTAAAGG GTTTATGCACCTTATAGAACATTAT AGCAAAATAGTTTAGTTGATTTC ATTATAAAATAACGTTTCAAGAACCC TGTGCAAAACTGTCAATAATTCCCT AAAGCACAATTGATCAGAAAAATC CATGATTGTTCAGCCTTCACACCC TTCTTCATGTAAGAACACCCCTCT GTACATCTCACAGTTACTTATTAG GTTGAAAGGTATATGGTGAATGGT CATTAGACGTCTCGACAGCCACCT GCTGCTGACCAAAGCTT (SEQ ID NO: 248)
CTP61D	prion protein [mink, Genomic, 2446 nt]	S46825	ACATTAATGCCAGTGCAGCCA GGAACATTGCAGAACATGCTAAATT ATCTGCTAGGTGATGATATTGAAC GATCTAGACAATAATTCCACCTTAC TTAAATAACAATGAACAGAACATTCC TTTTTCCACTCTGAGTGGATATT CTGTCATCTGACCAAAGCTT (SEQ ID NO: 249)

CTP62A	No significant match		AAGCTTCGACTGTCGCATCAATGA ATGTTTAAGTAATAACTTGTGG TTATCAGCTTGATGGTGCATTAATT TTATGGCTCATTTCTTATTGAA CCATTGTCGGATTCTCATTTATA TTGGACGATCCCCAATCGAACGGT ACCAATTTTCAGCTGTGATTGC GGCATGTTCAACCGGACCGTTT TGAAATTAAAACATTATTTGGC TGGGTCATGAGTAATTACCCAGC TATGAAATCGTTATGGTGTGTTG CAGCAGTCCATTTCACCTTG GATCTATCTGCTTGGAAATACATT TTATTGGGTAGAAGTGAGTTAT GCACTCACCGCCTCCATTCTGGT (SEQ ID NO: 250)
CTP63A	No significant match		AGAATCAAGCCACCAGGTGTTAT TTTGCACATAAATAGAGTCCCT AGTCCCATTGTTACATAATATAT GAGATAACAGAGAACCTAAAATTC ATTGGTAAAATCAAGTGTGAG TATACTAAATACCAATGAGCTAG TAAGACTTGTAAAGGCACTGAAGCT AAGGCTAACAGCAACAGAGTCCTT TATGAAATAATTCAAGAACCAA CGCATTCTCTGATGGTGCATTCCC CTGGGACAGTCGAAGCTT (SEQ ID NO: 251)
CTP64B	No significant match		CATCGCAGACATTATTTAGTTT GTTAATTCAAATATTCAATTAAACCT CTTGTATCAGATTAAAGGCAGAGA AAAGATACACGCCCTGGTTAACT GAACCGGGTTAGATAGTGTAGT CCACCCCTGGGTTCCACCAGGGAG ACCTCACCCGAGATGACAGGTCC GGTTGCTGGTGCACAGTCGAAGC TT (SEQ ID NO: 252)
CTP65A	Pig mRNA for endoplasmic-reticulum Ca(2+)-transport ATPase (class 3 non muscle transcript)	X16951	CCATTAAAATGTTTATTTCTT TTAAACTAGATTGTGAAGTGCCA CTGAAATAGGCAATGTTGGCAAAA CAATGTCTGTTACAATAAAATACAT TAGACATTAAATAAAACCTTAA AAACTACATGGGGGACATGAAC CCAGTCGATTGAATCTGGAACAAT GTTTCTGCACAAGCGAGAACAGG CATACCTTGTAAAGACTGATGT AAACAGAACCATCGGAACCTACA GTCGAAGCTT (SEQ ID NO: 253)

CTP67A	clone RP5-1071L10 on chromosome 20	AL133228	CACGTTTAAAACTTATTCATA TTAAAAAAATTGTGCATTCCAATAA TTAAAATCATTGAACAAAAAAATG GCACTCTGATTAAACTGCATTTAA CAGCCTGCAAGATACTTGGGCC AGCTTGGTTTTACTCTAGATCTC ACTGTCTCCACCCAGCTCTTC CTTCACCAACATGCAAGTTCTTT CCTTCCCCTGCCAGCCAGCCAGAC AGGCAGATGGAAAGGCAGGCGC CTTCGTTGTCAGTAGTTCTCCATT CTTGATGTGAAAAGGGCAGCA CAGTCATTAAACTCGATCCAACC GCTTGCACTTACAAGTTAAC AGCTAAAAGAAGTAAAATAAGAAG GCAATGCTGTGGATGTACAGTG CATATTGGCGCGCAGCCTCATT ACGATTGGCTACTAAGCTT (SEQ ID NO: 254)
CTP68F	Oryctolagus cuniculus New Zealand white elongation factor 1 alpha Rabefla2)	U09823	CTCATTAAACTTTGTTTAATGGG TCTCAAATTCTGTGACAGATTTT GGTCAAGTTGTTCCATTAAAAAG TACTGATTAAACTAATAACTT AAAACTGCCACACACGCACAAAAA AAAAAAAAAAACAAATGGTCCAC AAAACATTCTCCTTCCCTTCTGAAG GTTTACGATGCATTGTTATCATTA GCCAGTCTTTACTATTAAACTTAA ATGGCCAATTGACACAAACAGTTC TGAGACCGTTCTCCACCACTGAT TAAGACTGGGTGGCAGGTATTA GGGATAATATTCAATTAGCCTACT AAGCTT (SEQ ID NO: 255)
CTP70A	No significant match		AAGCTTAGTAGGCACGCAATAAT AGGAGAATGAATCAGAGTCCCTCA ACCGCTCCTCCCTAATGTCCCTT GAGCTGCTCCTCTTCCACTCTGC CTCAGCTTGTCCATGTCACCTCGC TCCAGAGCAGCCGCAAGAGCATC TTAACACCTTGTCGGCTGAACCTCT CTCCCACCTCCACTGTACAGTGA TATGACTGAAACCTCATTTAACCTT TTAGAACTACCAGGAGGAGGTTCC CAAGGATCCCAGG (SEQ ID NO: 256)

CTP71A	Canis familiaris caveolin-1 mRNA	U47060	CACTGAATCTCAATCAGGAAACTCTTAATGCACGGCACAACTGCCAGATGTGCAGGAAAGAAAGAACATGGCAAAGTAAATGCCCATATGAGTCAGTGGGATGCCAAAGAGGGCAGACAGCAAGCGGTAAAACCAGTATT TTGTCACAGTGAAGGTGGTGAAGCTGGCCTCCAGATGCCATAAAACTGTGTGTTCTCTGGTTCTGCAATCACATCTCAAAATCAATCTGACCACGTCGTCGTTGAGAAGCTT (SEQ ID NO: 257)
CTP72B	No significant match		CCATTTTGCTCTTAAAGAGCATCTTAAGTGAGAGATCATGACAATCTTG GCCACTCCAGGTTTCTCATCTACTACATGATCTGTTCCAACAAT AAGCCATTGAAATTAAAGGTCTCCAGAAGTTTATCTGGGGTCTGTGATTGAAAAGAAGGAAATGAGATGAGACTGCCTACTAAGCTT (SEQ ID NO: 258)
CTP73A	Homo sapiens chromosome 11 clone RP11-546N8 map 11q	AC026201	CAAGCCCCATCAATTAGTGTCTTTTATAGACATTACACACACAACATAT ATAGTGACACAAACACAAGATTCAACACTTGTAAGATTTTATTTGCCAGTTCTTAATTGGATTACTGGCATCAGGGTGGAAACTTAGAGGAAGAGAGCCAGGTAGCATGCATTCTAGGGCCTACTAAGCTT (SEQ ID NO: 259)
CTP73B	No significant match		CCCATAAGAAACATCTTAAACATTCAGAATACTCAGGATAATCAAGGCTAATATTCTATAAATTCTTACGTGTATTATGTACATTCAAGAAAAGTGTAAATTACTCAAATATTACTCAAACCCCTTATAGTCTGCTAACTTGCATGTAGAAACATCTGAAGTAACATGCTGCCTACTAAGCTT (SEQ ID NO: 260)
CTP74A	No significant match		AAGCTTAGTAGGCATCAATTGGATCCTTCCTATGTTGAAATGGAAGATTAAATGAGCTTACATTAAATTAGTTGTAAATGTGTAAAGGAAGCCCAGCAAAATTCTTGTAAAGCTTGTGATGATCCCAACGTATTACCAATTGTATGTTAAAGCAAATAATCACCATTCTTA (SEQ ID NO: 261)

CTP75C	No significant match		AAGCTTCTCAACGGCCTCCACCTC CTTCCTGCCCTCACAGCCTCTGG CTCTGGCCCAAAAGTGATTCTT TGTAATTATCATGGTTTCTGCAT TAAAATGCCATTCTGG (SEQ ID NO: 262)
CTP76B	No significant match		AAGCTTTACCGCCATCTGGCTC CTGTGGAGGCCTGCTGGGACCAG GAECTCTAAAGCGACGANTTTTN TGGAAAGGCTTGGTCCAAGGCCA TTTTGCCGGCTATAAACGGGTC TCCGGAACCAAAGGGAGCACACA GCTCTTCTTAAATTGAAGGTGTTT ACGCCCGAGATGAAACAGAATTCT ATTTGGGCAAGAGATGCGCTTATG TATATAAAGAAAAGAACACACA GTCACTCTGGCGCAAACAAA CAAACCCAGNAGTCATCTGGGGA AAAGTAACTCTGGGCCATGGAAA CAAGTGGCATGNGTTCCGTGCCA AATTCCGAAGCAATNTTCTGCTA ATGCCATTGGACACAGAACCCGAG TGATGCTGTACCCCTCANAGGATT TAAAACTAACGAANAANCAATAAA TAAATGTGGATTGCGNTCTNGG (SEQ ID NO: 263)
CTP77D	No significant match		CAATTGGTTAGTTTATTCAAAA TTGTACAAAATGGCCATAAGCGGC TATAAAAATTCGTTTGGAAACA CGTGGAAATTAGAAAAGAACACAA AAGCAGGTTATCATTACAGTGT AATGGAAAAGCTCTCTGAGGCA GGAATCACAACTCTCCTTCTTCTT CCCCAGTCTCTCGTGGTCTCCCTC CCGGAGCGCTCGAATGAAACTGG TAAACCCGATTCCGTCCGATCGC (SEQ ID NO: 264)

CTP78B	Homo sapiens SON DNA binding protein (SON)	XM_009738	CGATGTTGAGATCCAGATGACACA GGAAATTCTTTGTTAATGTACCT GGCTTTTGGTGGAGTTGGCTTG CTGCAGCAATATTCAGATTGAAAA AAATGGGTTGGGTCACTGAGTT TAAAGGGATGATGATAAAAAGGAG GTTCTTCTCCTCTCATCCCGAA ACATGAGGCTTATTCACTATTACAT CATCATCTTCTTACTCTGTGCGAT CTGTTGCATTCTCAAGTTAGTTC TTCTATAGTNGCTCCTCCTGATTT TTAGCAACTTCTCTTATTGTGG GTGGAGGTGCACGCTTTAGGTTT GGCGGGTAAAAGCTT (SEQ ID NO: 265)
CTP79B	No significant match		CATATATATTCTTTTATTTCTTGT TATACTTCCC AAAACAGAGACAT TCAACAGTAGTTAGAATGGCCATC TCCCAACATTTAAAAAAACTGCA CCCCCAATGGGTGAACAAAGTAA AGAGTAGTAACCTAGAGTTAGCT GAGTAAGCCACTGTGGAGCCTAA GTGGTGAGGTCTCCAATTTCAGA GTGATGTCTTCAACTTGTATCA TCATTTAGCGGTAAAAGCTT (SEQ ID NO: 266)
CTP80A	Homo sapiens WDR4 gene for WD repeat protein	AB039887	CGCCGGCCAGAAAGCGTAATATT CTTAAAGGAACCTTAACAAAACCT TACACTTAATAATGTAATCTCACC ATGTTCTAGTCAAAAATTACTAC ACAGACTCAGTAGCGGTAAAAGCT T (SEQ ID NO: 267)
CTP81A	No significant match		CCAAAGAAGTGTATTAAACATTG GGGCCTCAGCGGGGCCAGAGAG GAAGTGGGTGCTAGAGGCTCCTG AGGCTCAGGGCAAGGCCTGCAAG ACAGATCCCATTGCTCAGGAGGC AGCCCAGATTGCAAATGGAAGACA GCCATGGTAGCGGTAAAAGCTT (SEQ ID NO: 268)

CTP85D	Homo sapiens Rho-associated, coiled-coil containing protein kinase 1 (ROCK 1)	XM_008814	AAGCTTAACGAGGAGACAGAGGT CATGATTCTGAGATGATTGGAGAC CTTCAAGCTCGAATTACATCCTTA CAAGAGGAGGTGAAGCATCTCAA ACATAATCTTGAAAGAGTGGAGGG AGAAAGGAAAGAACGCTCAGGACTT GCTTAATCACTCGGAAAAGGAAAAA GAATAATTAGAGATAGATTTAAC TATAAGCTTAAATCATTACAACAC GGCTAGAACAAAGAGGTGAATGAA CATAAAGTAACCAAAGCTCGTTA ACTGACAAACATCAATCTATTGAA GAAGCAAAGTCTGTTGCAATGTGT G (SEQ ID NO: 269)
CTP86F	Homo sapiens chromodomain helicase DNA binding protein 3 (CHD3)	NM_001272	AAGCTTAACGAGGACCCAAAGAAG CAGAAGGAGAACAGCCAGGAAA ACCCCGAAAACGCAAGAAGCTTG ACAGTGAGGAGGAATTGGCTCT GAGCGAGATGAGTACCGGGAGAA GTCAGAGAGTGGAGGCAGCGAAT ATGGAACTGGACCAGGTGCGAAA CGGAGGCCAACGACAGGG (SEQ ID NO: 270)
CTP87B	Homo sapiens tetratricopeptide repeat domain 3 (TTC3)	XM_009760	AAGCTTAACGAGGCATGTGAAAAT TATGAGCAGAGAAAACCTCAAGGG CTCAGAAGAGACCAGGGATCTGG AAGAAAATTGAAAAGGAACCTAG AAGAAAACAAGATCTAAAGACAG ATTAGATTGGTTCCTTGAAGACT TGGAAAAGGAAATCAAGAAATGGC AACAGGAG (SEQ ID NO: 271)
CTP88A	Rattus norvegicus ribosomal protein L31 (Rpl31)	NM_022506	AAGCTTAACGAGGATGAAGATTCA CCAAACAAGCTCTACACGCTGGTT ACCTACGTACCTGTCACCACCTCTC AAAAATCTACAGACTGTTAATGTG GATGAGAACTAATCGCTGATTGTC AAATAAAGGTATAAAACTGCTCCA TG (SEQ ID NO: 272)
CTP89B	Homo sapiens genomic DNA, chromosome 8q23, clone: KB1935H12	AP003473	CTAAAGGGCCAGATAGTAGCTGT GGGCTGGGGTCTAAACTGTGTT GCCCACTACTCAACTCTGCCATTG TAATGTGAAAGTAGTCACAGACAA AATATAAAGAAATGAGTGTGACTG TGTTCCAATAAAACTTATTACAA AAGCATTCACTGGCTGGATTGG CTTTGGGCCATAATTAAATCCCC TCTGGTAAAATAACTCACTATTTAG CTGGATCATGAGTACGTGGAAGCT T (SEQ ID NO: 273)

CTP90A	Homo sapiens clone 24800	AF070622	ACAGGTTCATCTGAATACATATT ATTAGATAAATATTAGAGGTTGCA CATCATCTAACTACATACAGCTT GCAAGACTAGAAATACAATTAGT TTTTGACCAGTTAAAGTATGAAA TGATTGCATTGTACATACGATGTA CAAAGACGATGATGGTTCTGTGG GAGTTACTTCAGGCTGCACTGGT GGTGTGTTATGTGTACGTGGA AGCTT (SEQ ID NO: 274)
CTP92A	No significant match		GCACTAAATTCAAACCAATGACCT CCCATGTTCTAATTCTGATTGTTTA ATCCAACTGGGAGGGTAAACCGGG AGACTCTTGGCCTGTCAGTGACA AAATGGTTGTAAAAAAGAAAAAAT AAATACGATATAAAGTAAGTATAA CTAGCACTCAAGCTT (SEQ ID NO: 275)
CTP92C	Human DNA sequence from clone RP4-580N22 on chromosome 1q42.2-44	AL133286	GGGGTGTGAAGAGCCTGTTTG TCATATTACCAGAGTTGGTTTCT GGTTCCCTCTCATTTGGTAGGCT CTGTCAGAGAGAAGGTCTAGGGC TGAAGGCTGTTGTTAGATTCTTT TGTCCCAAGTGGTGTCCCTTGAT GTAGCACTCAAGCTT (SEQ ID NO: 276)
CTP93F	clone RP1-211D12 on chromosome 20q12-13.2	Z93016	AAGCTTGAGTGCTGTTGCTGATGT ACAACCTAAAATGTGAAGTTGTA GCTTTAACCTTTGTAAATAAAACT AATAACACTGGCTTAAGTGCTGAC TTGAAATGCTATTTATAAAGTTG GATGTAATAATCAATCGAGGTCA GCAGTTGTATATGTAGGAGACAT AGCTTCCCTCCCTGCACCCCCCATT TTTTAAATTTGAGGTGCTTCTG TGTGTTTTATGTTAGAATTGTTCT CCCTCCTTACACGTGGTCACC TTGTTTAAATAAACTGTCCCTTG G (SEQ ID NO: 277)
CTP94B	Homo sapiens clathrin, heavy polypeptide (Hc) (CLTC)	NM_008305	AAGCTTGAGTGCTGTTGCTGATCTGTGC TTTTCTGTGGGACCATTCATT AGGAGCAAAGAGCACCATGATT CAATCTGTGTGTTACTAAC CTTCCCTGAGGTTGTATGTTG GATATTGTGGTGTGTTAGATACT GAGTGTACAGAAGAGAGAAATTCA AACAAAATATTGCTGTTCTCAGTT TTGTTTGTGGAATTGAAATTACTC AAATTAAAATAAAATTACTGGACTG TGG (SEQ ID NO: 278)

CTP99A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAACAGTTTATAGCACT AAAAAACATTGTTACATTAAT GTCGAACCAAACCTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTCCCTATTAT CATATGACCACACTGCCGCCT TAAAACCACTGGTCGCTGACATTA TGCGAAGCTT (SEQ ID NO: 279)
CTP100A	COX15 (yeast) homolog, cytochrome c oxidase assembly protein, clone MGC:8634	BC002382	AACATATAAAACATTATTCACTA GGAATAATTGTGGCAGACACAATC CAGTGAAGCAGCTCAATCCTGCT CAGTTAGGCTAGTTGAAGAACCAT ACTTTAAAAAAAGAAAGGAAGACA GGCAAACAAGTGTACAGGAGC AACAGACTCAAGGTCACCCCCAC AAGACACCCCTGCACAGCAGGGAC GGGGACAGGGAGGATGACCTCTT AGGGCCTGTGCCTTCGCAGAGGT GCTGGCGGATGGGTGTGGTCTT CTTGGGTGTCTCCTCTGTCTCAT CTATGCCGAAGCTT (SEQ ID NO: 280)
CTP103JJ	No significant match		AAGCTTCGGCATAGTTACTGTTG ATTTAAGTTTATATAGTTCTTA GTTTGAAGAAATCCTCAAGAAC AGTTTCTCTAAAGAGCATGTTTAA TTAAATGCTAATTAAATTACCTTCT TAGTTTCCAATTAGTAGGCCAC TTCAATGTCTATTAAAGTCAAATA AACCTTCTGAACCTAACATTAA AATCGATTAATTGTGTCAAAAT (SEQ ID NO: 281)
CTP104I	No significant match		AAGCTTTTTTTCAAAACGGAT TTGAAAAACTGTATTTCTTACACT GTGCACAAACCTTTACTAAATA AATATCAAACACTACATTCTCAGAAA GATGTTCTAGTATTTCTTAGGT CACTTCCATATGTAGTATGTACAG TGAGACCACTTTAAAAAGCAAT GACTTAGGCAAACCAACCCCTAATG GTTTGTAGACCATTCCCTGTTT TAATTAAAAATCATAGGGTTGTG TTCTGTATAAAGTTGTACATTCA CAATGTAAAATCTGACATT (SEQ ID NO: 282)

CTP109P	No significant match		ATGCAACCACACGGAATTATTGA ACATTTTCACAAGTGATTCATTAA AGGAAGGCTTTTCGTGCCTATAT TGGTACCATCAGTTGCCCTA TCACAATCTCATGGTAGTCCTT GCATGTAGCAGGAACCAACAAAT GTCTGCTAAATTGACAGATGGAGC CCCAGACGACCTAAAACCTGCACT TTAGAACACTTACTTCATCCTGA GCTATTATGAATAAGGAACCTAAG TGACTGTTAAAGCATTCTACTGA TGAGTTGTAATGTTCTAAAGCAA CATATCTCAAAGGAAAGGATATTG AGTTTGTCTCCACCATAAAATCCT ATTTTAAACAAAGGTACTACTTAA AAATGGTCTCCAAGGCCTCAGC AGAGGTTCTAAAGAGATGTGACAA TATGCCGAAGCTT (SEQ ID NO: 283)
CTP110A	No significant match		AACATATAAAAACATTATTCACTA GGAATAATTGGCGAGACACAATC CAGTGAAAGCAGCTCAATCCTGCT CAGTTAGGCTAGTTGAAGAACCAT ACTTTAAAAAAAGAAAGGAAGACA GGCAAACAAGTGTACAGGAGC AACAGACTTCAAGGTCAACCCCCAC AAGACACCCCTGCACAGCAGGGAC GGGGACAGGGAGGATGACCTCTT AGGGCCTGTGCCTTCGCAGAGGT GCTCGGCGGATGGGTGTGGTCTT CTTGGGTGTCTCCTCTGTCTCAT CTATGCCGAAGCTT (SEQ ID NO: 284)
CTP111A	No significant match		AAGCTTCGGCATAAACGATCCATT CTCCTCGGCCTCCAAAGTGTCAA GGTTCCAGGCCTGAACCACCATG CCCAGCCTGTTCTTTTTATCTC TAGGTGGTGTCTCCAGCTGTAGT AGAAATAGCATTGTATTGGATCT ATTTTTAAATAGGGACTAAATAC AGACCATTGTTAGAGTGAAATG CCAAACAAGAACGAGATTTCTC TTGGCT (SEQ ID NO: 285)

CTP112B	Bos taurus peroxiredoxin 1 mRNA	AF305561	CTCAGTTCAAGTTAATAGAAACA ACAAAAGATCAAAAGTGTGCCTT GCTACTACTGTACATATCAGTTGG CCTGCCCATAGCACACCTCAGA CCATCCTCTCCAGAGGAAGAAAG GCTGGCCTCCCCAACCCCTGCAG GAAAGGGCGGTCTTGTCAC CACATACCACATCTGCAGAGTCTA AAGTCTTGTATAAGCATGACAAT AGTACAAAAAAAGATTCTGTTTCA TGGATCCCCCACTACAGCCCGA CCTAAAATGGCGAGGGCGCTCACTT CTGCTTAGAGAAATATTCTTGCT CTTCTGGACATCAGGCTTGATGGT ATCACTGCCAGGCTCCAGCCAG CTGGGCACACTTCCCCATGCTTGT CAGTAAACTGGAAGGCCTGAACC AGTCGCAGTGTCTCATCCACAGAG CGACCAACAGGAAGGTCGTTACA GTGATATGCCGAAGCTT (SEQ ID NO: 286)
CTP113A	Bos taurus ribosomal protein L30 mRNA	AF063243	CTAGTTAGAGTCAGATGTTATTAA AAAATCTGATCCACTAAAATTAG CGTTTCCACCAACTCGGGGTGC GGAAACCTTCACAGGCTTCACAAT CTTTTGCTTAGGTGCTGCCTTGT GGGAGCCTTAGCAGCAGGCCATTG CTGTCTTTTAGATGCTTGCTTAG CCTTTTTGCTTCCTGGCAGCCC TGATGGCCTGTTCTCGTTGAGCCT TCCTTAACCTCAGGTTCTGATTCT CTTAGCCATTATATCAGCAAGAGA TGCCCCAGTGTGGCCCTCTGGA ATTTGACTGCACGGGGTTCTT TCTTCTGAATTCTCCGACTGTC CCTTTTGCTGCTTCTCTGTAGAG GACAGTCCAGTTGATATGCCGAAG CTT (SEQ ID NO: 287)
CTP115B	Homo sapiens chromosome 17, clone hRPK.227_G_15	AC005899	CTAAGGTGATATAGAAGTGGACTA AGGGAGAGCAAAGTTGGCAATC CCATTAATCTTACAACCTCCTAAAT TATGGCAATCACAATGCCTGCCCTG AATGAATATAGCAAGTCCTAAAGG ATGTCTCTGTGAGGGCAGATGGA AGTTTACTTCAACTCAACTCCATCT ACTATTTAAGGGAAGGATAAGTCA AAGTAAGAGTTAATTATTTAACAT GGTTTGTCCATTATGATTAAACC ACACTATGGACCCAGAAGCAGTT AGGTAAAAGGGATTCTAGAAGC TTAATTATGCCGAAGCTT (SEQ ID NO: 288)

CTP116A	No significant match		AAAAGAGCATACTTATCAGTTGAA TGGGGATAGAGGTTTAGATATT TCCAAAATATTATAAAAACACTCA TTGTTGAGAAATCACTTACAGAAT GGTGGCTATCAAACAAATAATTAT AAATTTTAAGCACAAGTCACAT GTTTGTAACTCCTGTGTGAATTTA TTTAGCTGTGACATTAATTGAAA ACATCAGATATGTTTGGAAAAGT CTTAATTGAGAACAACTGAAGGA AGTTAATCCAGAACATCTATATGTAGT TAGCTATTAAATGATGATGCTTATT GACAGTATATTGCTAATATATTCT TCATGAAATCTGAAGTTAAATAGTT TCGTTGTGGAATAGTGTCACTGTA ACATTCCTTACGAAGTTCAATAA ACCAGCTTGCCATAAAAAAAAAA GCTT (SEQ ID NO: 289)
CTP117B	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN (RBP-J KAPPA) (M. musculus) (LOC82995),	XM_017740	AAGCTTTTTTTTTAAGCTGATGT CTTATGACTTTTATGAGTCGAAAT TGTTTGATTTCAAGCAAGTCAAATC TTGTAAGGCCCGCGTATTTTTT AAGATTATATGAAGTCTGTGCAA AGCTTTAAAAGAAATGCCTCTGC CTTGCCTGCAATACATGCAATGTA CGTTAACCTCGTCTGTGCTCAG ACACTGTCCGTATTTACTTCCTGT TTCCCTTTCTTAAT (SEQ ID NO: 290)
CTP119J	Homo sapiens SPR-2 mRNA for GT box binding protein	X68560 S52144	CAAAAGAAAAAAATAGTGTTTAT TAACTACCACACTGTTATAATACAC TTAACAGTACAATAAGGTAGCCT TTAATTTGAGGTGGTCTTAAGAA TAACAAATGAACAGAAATTCAAATT TTGAAATAGGTGAACTGCTGTAG TTATAGGTATACATTAGGAAATT GTATAGCTTTACAAGACCAGCAA TGAAACTTTATTTGTACATTTTT AATAATTGAAAATATAACAAATAAT TAAAAAATAAAAGAAAATACAGCAT ATAAAAAAAACATACATTCTCAATT AAATGTACTGGATACATATAAATT AAAGGGAAGAAGCAAAAAGGAA AATGGTTGATTTAAGTGCAGAC TGACTACCTAGACGAAAAAAA AGCTT (SEQ ID NO: 291)

CTP121D	Human ribosomal protein L23a	U43701	AAGCTTCATTCCGACGACCCAAGA CCCTGCGTCTCCGAAGGCAGCCN AAATATCCTCGAAAGAGCGCCCCC AGGAGAAAACAAGCTTGATCACTAT GCCATCATCAAGTCCCCTTAACT ACTGAGTCAGCCATGAAGAAAATA GAAGACAACAACACACTTGTGTT ATTGTGGATGTCAAGGCCAATAAG CACCAAGATCAAACAGGCTGTGAA GAAGCTCTATGACATTGATGTGGC CAAGGTCAACACCTTGATCAGGCC TGATGGAGAGAAGAAAGCATATGT TCGACTGGCTCCTGACTATGATGC TTTGGATGTTGCCAACAAAATTGG GATCATCTAAACTGAGTCCAGCCG GCTATAATCTAAATATAAAATTTT TCACCAT (SEQ ID NO: 292)
CTP122I	Human mRNA for KIAA0033 gene	D26067	AAGCTTTTTTTTTGGGACTGCTT TTGATTAATGCAGTTATCCAATTAA AGTGTGTGTACTTTAACTCAAAGTA AAAAGAAATTCTCACATGGTAAC ACTCTATTAAATGGTCCTGGAAA CATTAAACAGCTTCTGCTGCTTG CTTAATGGTAATACCTTGATTTCT TGATTCTAGGACATAGCTGATTAA TTAGGTAAAGTACTCTGTCAATTAA ACCTTCACCCAAAGACTGTCACTGTT TAAAATACTTAGCTGTGGAGAA ATCCTTGCTGTGTTTATTGTGAGA GGAATGGTCATCCTCAAAGTCTGT TTCTACTACATAATGTGGACTAATT ATTTTTCTATCACAGTATTAACAA ATGGATTATTGAAATACAAAGAA GATATTAATATACTATTCTTATGTC (SEQ ID NO: 293)

CTP124B	No significant match		ATGGCAAAGCTGGTTATTGAAC TCGTAAGGGAAATGTTACAGTGAC ACTATTCCACAACGAAATTATTAA CTTCAGATTCTATGAAGAAATATAT TAGCAATATACTGTCAATAAAGCA TCATCATTAAAGCTAACTACATAT AGATTCTGGATTAACCTCCTTCAG TTGTTCTCAAATTAAGACTTTCCA AACATATCTGATGTTTCAATTAA ATGTCACAGCTAAAATAATTCAC ACAGGAGTTACAAAACATGTGACT TGTGCTTAAAAATTATAATTATT TGTTTGATGCCACCATCTGTAA GTGATTTCTCAACAATGAAGTGTT TTATAAAATATTTGGAAAATATCTA AAACCTCTATCCCCATTCAACTGA TAAGTATGCTTTTAAAGGGGGGG AGCTT (SEQ ID NO: 294)
CTP126A	No significant match		AAAGAAAGTAATTATGGAACTAGA TTTTAACATTGTAAGAAACTAAAT GATCCTCAGTTGTAAGTTGATAT ATATTGTAACCTTTGTGAAATTGT ATCCTTATGAAAATACCACTTTGT GGAAGAGAGAATCCAACATGTAA TATTAATTAAAACAATCCATGTTT ACCCTATCCCTGCTCAATTAAACA GTGTATATAGGTCTAATAATAGCT CTGGAGCAACTTTATCATGAGTC AAATATATTAACACATTGATGTCT TCTGGTATATCTGAAAACAAGAG GTAGAAGTCCTGTTGAGAGTCTT AAAATAAACTATTTTACAAATGTA AAAAAAAAAGCTT (SEQ ID NO: 295)
CTP129A	Homo sapiens, Similar to cadherin 1, type 1, E-cadherin (epithelial), clone MGC:1151	BC007583	AAGCTTCATTCCGACGACCCAAGA CCCTGCGTCTCCGAAGGCAGCCG AAATATCCTCGAAAGAGCGCCCC AGGAGAAACAAGCTTGATCACTAT GCCATCATCAAGTCCCCTTAACT ACTGAGTCAGCCATGAAGAAAATA GAAGACAACAACACACTTGTGTC ATTGTGGATGTCAAGGCCAATAAG CACCAGATCAAACAGGCTGTGAA GAAGCTCTATGACATTGATGTGGC CAAGGTCAACACCTTGATCAGGCC TGATGGAGAGAAGAAAGCATATGT TCGACTGGCTCTGACTATGATGC TTGGATGTTGCCAACAAATTGG GATCATCTAAACTGAGTCCAGCCG GCTATAATCTAAATATAAAATT TCACCAT (SEQ ID NO: 296)

CTP131B	Homo sapiens similar to sperm autoantigenic protein 17	XM_006087	AAGCTTCATTCCGGGGACACATAG CCAGAGAGGAGGCAAAGAAAATG AAAACAAATAGTCTTCAAATGAG GAAAAAGAGGAAAACAAGTGAGG ACACTGGTTTACCTCCAGGAAAC ATGAAAATAATCCAAATCCATCAA CCTTCTTATTAATGTCATTCTCC TGAGGAAGGAAGATTGATGTTGT GAAATAACATTGTTACTGTTGTG (SEQ ID NO: 297)
CTP133B	No significant match		CCAAAAAGAGCCATGCCAGAGG GAAAGTTGGAAACGAAAGCCAAGT TTTCATTTAAAAGGAAACANTAAAG AGGTTAGCCAGAGAAAACCTGAACC AAAGAAAAGACAGCACGCTGTTCA GAATGGTCAATAAGAGCCTAAAAC GGTACCCCTCGGAATGAAGCTT (SEQ ID NO: 298)
CTP134A	No significant match		CCAAAAAGAGCCATGCCAGAGG GAAAGTTGGAAACGAAAGCCAAGT TTTCATTTAAAAGGAAACATTAAG AGGTTAGCCAGAGAAAACCTGAACC AAAGAAAAGACAGCACGCTGTTCA GAATGGTCAATAAGAGCCTAAAAC GGTACCCCTCGGAATGAAGCTT (SEQ ID NO: 299)
CTP135A	Homo sapiens cDNA FLJ11508 fis, clone HEMBA1002162	AK021570	CCATCAAATGTAATTATTTAAATA ACAATTCAATTGCATGTTAAGTAAA CCAGTTTAGCAATATAAAATAC AGAATTTGAGAAAATCTGGCAAA TTAACCTGTATCTAAATGCAGCA TATTCTGTGATACTACGGAATGAA GCTT (SEQ ID NO: 300)
CTP143B	No significant match		AAGATTCAAAGAGTGAGCAAGTG CATTAGCAGGGCAGAGAGAGAGG CAGCAGCAGACTCCCTGCTGAGC TGGGAGCCAACTTGGGACTCGAT GCCGGGACCCAGGATCATTACC CGAAGCTT (SEQ ID NO: 301)

CTP144B	No significant match		GGGTAAATCCGTCCAGTTACTGT AAATATGCCTTGACAAACTGGTA ACTCATGTCCCCTCAGTCCCAGA GTACTGGACCAGGGAAACTCCAG CCACAGTTAGGGAAAGGCCACCT GTTGGCTCTGGGGCAGCAGGTCA TCCAGTGGCCTTCAGGAGTCACC AGGCCTCTGACCAGTTCTCCCCA CCAAGCAGTTTCAGAGTTGCCGC CAAGTCTATTTCACACCTCTCGTG TATGCCGAAGCTT (SEQ ID NO: 302)
CTP145B	No significant match		GGACTGATAATAATAGGATTTATT TCTAAAATTATCTTAGAGCTTCA AAGAGTATAACACACAGATCTTA CCACCACACCCCCCTGCCTATAC AGGAAACAACCAAGTTGTGAGAAC ATTTATCATGCACAGACACATCAG GGCTTGCAAGGTGCTACACAGGAA TCACAAATGCTGTTCCACATCATG TCTCTGTTATGCCGAAGCTT (SEQ ID NO: 303)
CTP148B	Homo sapiens serine-threonine protein kinase (MNBH)	AF108830	AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTATATAGCACT TAAAAAACCATTGTTACATTAAAT GTCGAACTCAAACCTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATATGACCACACTGCCGTCT TAAAACCACTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 304)
CTP149B	No significant match		AGGAAGAATAAAAACATATAAAA CATTATTCACTAGGAATAATTGTG GCAGACACAATCCAGTGAAAGCA GCTCAATCCTGCTCAGTTAGGCTA GTTGAAGAACCATACTTTAAAAAA AGAAAGGAAGACAGGCAAACAAG TGTTTACAGGAGCAACAGACTTC AAGGTACCCCCACAAGACACCC TGCACAGCAGGGACGGGGACAGG GAGGATGACCTCTAGGGCTGT GCCTTCGGCAGAGGTGCTCGGCGG ATGGGTGTTGCTTCTGGGTGTC TCCTCTGTCATCTATGCCGAA GCTT (SEQ ID NO: 305)

CTP150A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTACATAGCACT TAAAAAACCATTTGTTACATTAAT GTCGAACTCAAACCTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCCT CTAAAAAAGGACTCTCCCTATTAT CATAATGACCACACTGCCGTCCCT TAAAACCACTGGTCGCTGACATTA TGCGAAGCTT (SEQ ID NO: 306)
CTP150C	Canis familiaris mitochondrion	CFU96639	AGGATCCTCATCAATAATAGATA CATACAAGAATAGCCAGACTACAT CAACAAAGTGTCAATATCATGCAG CGGCTTCAAATCCGAAGTGGTGG TTTGATGTGAAGTGGTAGTATAGC TGTGGAGGAAGCACACGATGAG GAATGTAGAGCCAATAATTACGTG TAATCCGTGAAATCCAGTGGCTAT AAAAAAGGTAGATCCGTATACCCC ATCGGAGATTGTAAAAGATGTCTC ATAGTATGCCGAAGCTT (SEQ ID NO: 307)
CTP154A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTATATAGCACT TAAAAAACCATTTGTTACATTAAT GTCGAACTCAAACCTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCCT CTAAAAAAGGACTCTCCCTATTAT CATAATGACCACACTGCCGTCCCT TAAAACCACTGGTCGCTGACATTA TGCGAAGCTT (SEQ ID NO: 308)
CTP156J	Human DNA sequence from clone RP5-975D15 on chromosome 1p31.3-32.2	AL136120	AAGCTTCGGTAACCACTGCTAAT AACTAAAATACTCTAACTTGAATA ATCGACTCCGACGTCTTATTTTC CAAGTTGCCCTTTCTTAAACACC TTTTCTGATTTAACCGGAATAAC GGTCTTCTTTCCACTCGATAACT ATGGTGTCCCTTGGGTTACTGCT TAAGAAAAGTTGGTTGGCCATT TCG (SEQ ID NO: 309)

CTP161B	Canis familiaris TCTA gene, AMT gene, DAG1 gene and BSN gene	AJ012166	AAGCTTTTTTTGAAGATACAA GTTAGAGTCATTCAATCAGTACCAAAG GTAAGGAAAATTAACCTATGTA CACAGTCGAGTTTATCCTGCTTA AAATTGTCAAGTAGAGAGAAAATTCT GAAAATATTATGAAAAAGCTATTCT TCATGCTGGCAGCAATGGTTAAAA TAAAGATAATTCCCTTATTAAAAAA GAAAAAGCCTAAAAAACACTTTA ATAATCAAGTTGCTGTGAAGTGA AAGGGTTGAAAGTGTGAAACTG AAGTTAAAAGTTCTATATGTGTG TTTACTTTAAGCAAATTAGACATA GTGAATAAAATTGAATTTCAGAC AAATTATTTGCTTTTTTTATTITA TTTATTATTATCATGAGAGACACAGA GAGAGAGAGGCAGAGACACAGGC AGAGGGAGAAGCAGGGCTCCACGC AGGGAGCCCATTGTGGGACTCGA TCTGGGAACTCCGGGATCAAGCC CTGAGCTGAAGGTAGACACTCAAC CGCTGAGGCCACCCAGGTGCCCTG ATTGCTTTAAAGAAGTCTCCCC CTTCC (SEQ ID NO: 310)
CTP164A	No significant match		AAGCTTCGGCATACTGGTGAGG TTACAGTCCAGTTTGTTGTGCTTTA CTACACGGTTGGTTACAGGACTT CTGTGCATTGTAAAACATAAACAG CATGGAAAAGGTTAAATACCTGTG TGCAGATTGTAAGATCTGGTCCGG ACTTGCTGTGTATATTGTAACGTTA AGTGAAAAGAACCCCCCTTGTA TCATAGTCATGCGGTCTTATGTAT GATAAACAGTTGAATAATTGTCCT CAGACTCTTACTATGCTTTTTAA AATTAAGAAAATGTAATATAGTA AAAATCTTCCTATGCAATTACCTG G (SEQ ID NO: 311)

CTP178B	Homo sapiens mRNA for KIAA1524 protein	AB040957	AATAAGGCTTCATCTAGATTTTT CTGTGAAC TGAAGTGGTCAAGGA TTTAGGCAGCAGAAGGCTCAC AAACGGTCAGTTGAGGAACAGTT GCAGTATCTGCAACATCCTCAAAT ATTCCTTGAACA CTAAGGCT AGAAGAGAACAGTTCTGATCTG TCCAGAGGTTGGTTGACCAACGC AGTAGAGGCCACAGTAGGTTCTAA CATTAGAACGGCTCCAGAATG GTGTTGCCAGATGGAGACTGTTCA AATATCATCTGAGTGAGCACGTGG CGCAGCTGAGTCACTGAACAGAA GGCAAGAAGTAATTCTAAAACCTT TGAAGAAGAACAGGATCCTTCC ATTGAGAACCTAATAC TTGACT AAGACATGAAGAAAAGTGCTCATA CCTGGTAAGCTT (SEQ ID NO: 312)
CTP179K	No significant match		AAGCTTACCAGGTAGAGGGACTG TTGGAGGTATGGACGCACACAGG AGGGCCAGGCCAAGGCACGAGTT TTTCAGTGAAGGGGGTAAAGCATC ACAATTTAAAATGTTGCAATTAAA CTGGTTGTTAAATATC (SEQ ID NO: 313)
CTP185C	No significant match		CAGCGAAGAGGCATTAAGATTCA TGCCATAAGTTATTACAAACATG TTGTGTATGTTGAATTCAAGAGATT GATCCATTTTCAGAGACTGCACC TCTTAAAATGTTCCCTTTCACATCT GTTTAGTGGATCAAAAGCTT (SEQ ID NO: 314)
CTP197A	No significant match		ATGGTGTGTGTGGTTCAAATA GTTTATTACCTCTGTAGTGGAAA AACAAAGGAGAAATAAAATCTGCTT ACAATGGCCAAATTTATGGAGAA GCCCTAAAGTTGCTTCCCCAAAT CACAAATCTGATTCAAGAGAAGGA AAAAAAATGATGAAAAACATCTCAT CACACAAA ACTCAGTGTGGTGTCT CTGATAGTCATCAGCCAGCAGAAG CTT (SEQ ID NO: 315)

CTP201B	Homo sapiens, exostoses (multiple) 1, clone MGC:2129	BC001174	ATCATTCAAAATAATCATTTAAT GTTCCATAATTAAACTGTACACGA CCTAGTCTGGGACATAGAACCCA GTGAGGTGAGTTGGAGCAGTCC CAGGAGCCAGGAGTCGAGTTTC ATTGGCCTTTTTCTTTCTTTCTTT TTGTCATTCTGTTCATCTAAGATTA TTTGGATACTTGGCACAACTGGC TCTGCTGCTAAGCTT (SEQ ID NO: 316)
CTP202C	No significant match		AGAAAAAAAATTGATAATTAGGTG CAGATAGAAAATATGAATTAGAAG AGGTTAATTCAAGTGATCAGCCTG AAAGTTCAGCTTCATTAGCTTGT GGTAAATCCACCACCTCAGATAGT AACTAAAGTAAATTAAATTTCAT AAGAATAAAAGTAATCCCTGAAAAG AATTCACTTTTCCCAGAAGAAG CTTATAATTAAAAAAAAAGCTT (SEQ ID NO: 317)
CTP205D	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN	XM_011187	ATTAAGAAAAAGGAAAGCAAGGAA GTAATACGGACAGTGTCTGAGAA CAGAGACGAAGTTAACGTACATTG CATGTATTGCAGGCCAGGCAGAG GCATTTCTTTAAAGCTTTGCAC AGACTTCATATAATCTAAAAAAA TACGCGGGCCTTACAAGATTGA CTTGCTGAAATCAAACAAATTCC ACTCATAAAAAGTCATAAGACATC AGCTT (SEQ ID NO: 318)
CTP206A	Homo sapiens fatty acid desaturase 1 (FADS1)	NM_013402	CAGGCTGGTGTATAGGTGAAGAT AGGCATCTCTTACAGATGGGGGT GGGGGCTGTTGTTACTGGTGAAG ATAGGCATCTAGCCAGAGCTGCC CAGACTCCTCAGTGAGTAGATAA TGTGGCGAAGGCTGAGAGCAGG GGCTGGACTGGTACTCTATGCCA TGCTGGCACACAGGGACTGCAC CAGGGGAGGCCACTTATGGTAATT GTGTCGAGGCATCGTAAGCTT (SEQ ID NO: 319)
CTP208B	No significant match		CTAGAGGAAGTGTCTTTATTTTA GATCAACCAAACATATTAATATAA AAACCTTTAATATACAAACTGTAA TCACAATTGCATCCACGTAGCAGC GAGGGAAATGGGGTGTGCAGGAA GCTT (SEQ ID NO: 320)

CTP215B	No significant match		AAGCTTAGAGGCAGTAACAGGA GCGTCCCCAAGAAAAAGAGGAAA TTCTCTTCTAAGGAGGGAGCCACTT AGCAGTGGACCTGAAGAGGCTGC TGGCAACAAGAGCGGGCAGCTCA AGAAAAAGAAAAAGCTCCAGAAGC TATCCCAGGAAGATTAGAATGGAC ATTTTACCAAGGTGGGGCAAACCCA CATGATTCCAACCCACCCTATA TCCAATAAAAACAAATTACAGG (SEQ ID NO: 321)
CTP216A	Canis familiaris heat-shock protein (HSP27)	U19368	AGGCAGTTGCTTGAACTTATT GAGAAAAACAAAGGTAAATGTAT CAAAAGAGCATACACAGGTTAGTGT CAGGGACGGTCAGTGATGGCTAC TGAGGTGAGGATGTGGGCTAAC AGGGCTAAGGCCTTACTTGGCTC CAGACTGCTCCGACTTCCAGCTT CTGGGCCCAACTCTGGCACGT GCCTCTAAGCTT (SEQ ID NO: 322)
CTP222D	No significant match		AAGCTTACCAAGGTGAAGAGTGGG GTTGTCATGACCTTGGCTATGACG CCCAGCATTCGAGGTGGCTCCC TCTATTCTTACTTGGGCATCATA GAAAACGTGTCTGGGGATTAA TCTTAGAGAAAAATAAGCCTTCT GCTG(SEQ ID NO: 323)
CTP300B	Homo sapiens utrophin (homologous to dystrophin) (UTRN),	NM_007124	CCAAGGTTCACCAAGCTTCAACA AGCACTGTTCTTCTAATAATTCTG CCACAATATATTAAATTCTTGTCAG CTACTCCAACGTTCCCTGTCCAA CGGCACACTGCTGCCAGCGTTC ACCAAGCTT (SEQ ID NO: 324)
CTP304B	Homo sapiens unknown mRNA	XM_002211	AAGCTTAGCAGCACAGCACACCAA CATATACAAACACCGAGTGACTAC AGTACATGCGAGGTAAAGAAAAGT ACATTGGGGAGACTATCACTGAC ACTCAAGCCATTTTATTCCAATA TGTTTGCTTCACCTTCCAGT GCCAAAAAAACCTAGTCA CAAATTGGAGTAAATAAGAATCGG TGCCAGTTGACCT (SEQ ID NO: 325)

CTP306B	No significant match	AAGCTTCTGCTGGTATGGAAAGCC TTCAAGGAAGAGGGTAATGAGGG GGAAGAAGTGCTGTGCCAAAGTG ACAGCATTCACTGAGGAATAAAGA AAGGAGCTCAGTGGTAGCAGGAT GTTGAGCTTCCAAGAAAATCTGGT GGTGGTGAGAAAGTGGCTGCTGT GCACTGCAAGGAAACAGAGCGAT TAAAGAAAAGAGATGTGACAGGGTA GGTGGAAAGAGATAGCCAGAAGTT AGAAATGGGTTACACTGAAGAAGT AAATTATTTGATTAACAATAAGTA AATATACTGGGGATAACAAAAGCC TGATTCTCCACTGTCTCAGAAGG GATTGCAAGTATGG (SEQ ID NO: 326)
CTP308KK	No significant match	AAGCTTCTCTGGATGAACAGTTA AATGGAACCTGGAAACCTCTTCCT GGGATTATTCTCTTAAGCAAGGCAG TGTCAAAGGCACCCCTCCCAGCAA GACTTCAGAAAACAGCTGGCAGAA CTACAGGATCTGGTGTCTGGTGTG TAAAATACTCTCCTCCCTGTTCAA TGATTCAAGAACATGTGAAAGTGT GCTAGCTTCATCACATATAACATAA CAGCATTATGTATCAAGTTACCCCT GTTCAAACAAGGAGCAGGCTTCCT CTTTTGACTTAAATGACATGAAGT GAGAAAAAAAATGAGAATAACCN CNNGGAATTATAGAGGGTTATAA TTCTATCCCNACTATTCATAAAA GCCATCACGGG (SEQ ID NO: 327)
CTP309A	No significant match	AAGCTTCTCTGGCTTCCGAAGG TAAAATGTTGCCGAAGTTGCTGC GTTACAAGAGCGTATCCCAGAAAC CATAGGCCTACAACGCCGAAATTG GGAGCTACATCAGTTGAATCGAT TCAAGAAGGTATCGCTCAGGCC GTCCTAACACACTGACCTCAAAC ATCAGGCTCAAATCTAGAGTGGG TCAACACAAGCCCCTCAATGCAG AACAAATCCGAGTCAAACGTGATG AAAAACACGGTGTGTCGTTCTG TTGAAACTCTCGCAAGTTTGC GAGATTCAAGGCATGGTCTCAAAC GCACCCGCCACAGCTG (SEQ ID NO: 328)

Please substitute **Table 8** with **Table 8** amended as follows:

Table 8

Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GACTGAGACCATTATTNAG ACACGCAGCTGACCAAGGAG TGAGGGAGGGACCAGGTGTG CAAGCTAATAAATAGAGGAGG GGGAGACTCCTGGAGCTGT AGCCATTCACTTCTTCATTCTT CTCAGGCATGAAGGCATCTCT TTTCTGACCAAAGCTT (SEQ ID NO: 329)
CTP1G	No significant match		AAGCTTGGTCAGCAATTATA TTAGTTGCATTTAGTGACA GGTGTAAAGAGAAAGGCCCT TCTTCCCTTAAGGGACAAAT CTAGAAATCTTACACAGATGT GCAAATAAAGCTCGCGTGGT GTTC (SEQ ID NO: 330)
CTP4B	No significant match		GAGCAGCGAGTGAGCAAAACC CACGAAGTTGTTTAAGGTTA CAGCTATGAATAAACATTGTC CAAACAATGAAGATTAGGGC TGAAGAACGAGCGTATGTCTA CAGTCGAAGCTT (SEQ ID NO: 331)
CTP7B	No significant match		CAGGTGCAAGAGGTTGTTG GGAGGTAATCCTAGAAACCAC AGAAGGGGGTGGGATAGGA GGGATGGCAGGAAAACCACT AAGAACTGTGTTATTGAGAAG GTTATCACTGTGGACAACCTGG CACAGAATACACTCAGAGCT GTCGCCCTGAGGGACAATGA CGCCAAGGTCTTTCTCTAA GTCCTGTTCTTATAGGCCGA GGGTGGCTCCTGGGAGCAGT AACTGCCAACAGTCGAAGCTT (SEQ ID NO: 332)

CTP8A	No significant match		AAGCTTGATTGCCATACCTG AGCCATTGATATATTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTGAAAAGCTTCAG CCTTCACAGAACAGATAACTC TTCTTGTTTGCAGATTGAGC AGATAATTCTTTGAAGGTG ATAGTTCCCAAATTGGATAAA ACCGTGGCTGCCATTATATT ACAGAAAATAAAATGAAAAC TCAGTTAATTGTGGATTG (SEQ ID NO: 333)
CTP17G	No significant match		CATATATATTCTTTTATTCT TGTTATACCTCCAAAACAG AGACATTCAACAGTAGTTAGA ATGGCCATCTCCAAACATTT AAAAAAACTGCACCCCCCAAT GGGTGAACAAAGTAAGAGTA GTAACCTAGAGTTCAGCTGAG TAAGCCACTGTGGAGCCTAA GTGGTGAGGTCTCCAATTTC AGAGTGTGTTCAACTT GTATCATCATTAGCGGTAA AAGCTT (SEQ ID NO: 334)
CTP18B	No significant match		CCAAAGAAGTGTATTAAACA TTGGGGCCTCAGCGGGGCC AGAGAGGAAGTGGGTGCTAG AGGCTCTGAGGCTCAGGGC AAGGCCTGCAAGACAGATCC CATTGCTCAGGAGGGCAGCCC AGATTGCAAATGGAAGACAG G (SEQ ID NO: 335)
CTP25D	No significant match		AAGCTTGACCATAATAAA CTCTGGGCAGAGGGTCTGG CATACATAAGTAGATACTCAG AAATATCTGTTGGATTGTGTT GATTTAATTATTTGTGTTGC TTCTTTAAAGATGAGCACTTT CTATTAGATATTTTGATCA AAAAAAAGATATTTTTGATC ATACAGATTAAGCAGGATT TTATTAATTGTTCTCTCCCT GGTTGG (SEQ ID NO: 336)
CTP31A	No significant match		GGGGCAGATAAAAACACTAA TGTAAAATTACCTCTCAGA AAAATTCCAGTATGCTATAC GGTATCACTAACTATAGTCAC TATAGTATAACAGTAGATCCCT AGGATTATTATCATGATGTACA GTCGAAGCTT (SEQ ID NO: 337)

CTP36A	No significant match		CAAGTTTACCATGGTTTAAT TATTGAAACAAAATTAACGTAAGTAGAACATGTGCAACAGTG TCTCTAACATATGGAAGAGGT AAATATGAATTATACAATAAAGGTATTTATCCACTGTAACA AATTTCACAAATAATTGGCATT ATCTTCAACAAATGTCTCCC AAATTCTAAGCAAAGTATGCA AATTGGAGATTAACCTAAAC AGGCATAATTATCTTCTTATCC AGTTTTCTGAAGAGACTGAA GAGTCAGGCTGACCAAAG CTT (SEQ ID NO: 338)
CTP47G	No significant match		AAGCTTGCACCATACTCCTCC TCTACATATGCTCCCAAATTA CCTTCTAAAAGGCTGTATTA ATTTACTTCACCAGTAGTATT ATGAGAGTGCCATGTCCCTT AGCCTTTAAATCACTATGA GCAATCTTAAATCATGTACTA AATCTTATAGGCAAAGAATAG GGCCTTGCCCCCTGCCCCCTGT T (SEQ ID NO: 339)
CTP50A	No significant match		ATTCCTTTCCAAGGACCTCT CTTCTATGTGATCACTGAGTA AGTTCAGTCACTCCCATCATC TCTAGATTGGAGATTTCCAAA TTTATGGCCTTCCTAACCTTG AAGCCTTATTTCTAACTGCC TACTAAGCTT (SEQ ID NO: 340)
CTP52B	No significant match		AAGCTTAGTAGGCAATAATAG AGAAGTAGAAATTGAATGTGG AACATTAACCATTAAAAATCAT ACTTTGAATGTGCTGAGGTC ATGAATTGTTTACCTCTTT GTAATTGTTGTTTCAGATT TCTGTAGTTAGCATATATTCTA TAATCAGAAAAAGATGCTTCA AGTTTTGCAGATTCACAG AATTGTTT (SEQ ID NO: 341)

CTP53A	No significant match		AAACAAAATTCTGTGAAATCT GCAAAAAACTTGAAGCATCTT TTTCTGATTATAGAATATCTGC TAACTACAGAAAATCTGAAAA ACACAAAATTACAAAGAAGATA AAAACAATTGATGACCTCAGC ACATTCAAAAGTATGATTTTA ATGGTTAATGTTCCACATTCA ATTTCTACTTCTCTATTATTGC CTACTAAGCTT (SEQ ID NO: 342)
CTP58A	No significant match		AATTGTACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTGATCCCTGATCTAG GCCTCGGCCCTTCAAAGTGC GTTGATCAAAGTGGATATGC TTCGGCTGAATCTGCTCTG GTGCTTCTCTTAATCGTTTC TCCTTAATGGGTTACTTCTT ACTAGGAAAAAAAAAAATGTC CACCTCTGGAATTAAACGTTGA GAAGCTT (SEQ ID NO: 343)
CTP62A	No significant match		AAGCTTCGACTGTCGCATCAA TGAATGTTTAAGTAATAACTT TGCTGGTTATCAGCTTGATGG TGCATTAATTTATGGCTCATT TCCTTATTTGACCATTGTCG GATTCTCATTATATTGGAC GATCCCCAATCGAACGGTAC CAATTTTCAGCTGTGATTG CGGCATGTTCAACGCGACC GTTTTGAAATTAAAACATT TATTTGGCTGGGTATGAGTA ATTCACCAAGCTATGAAATCG TTTATGGTGCCTTGCAGCAG TTCCTATTTCTACTTGGAT CTATCTGTCTTGAATATCATT TTATTGGGTGTAGAAGTGAGT TATGCACTCACCGCCTTCAT TCTGGT (SEQ ID NO: 344)

CTP63A	No significant match		AGAATCAAGCCACCAGGTGTT TATTGGCACTATAAATAGAG TTCCCTAGTCCCATTGTTA CATAATATATGAGATAACAGA GAACCTAAAATTCAATTGGTG AAAATCAAGTGTGTAGTATAC CTAAATACCAATGAGCTAGTA AGACTTGTAAGGCAGTGAAGC TAAGGCTAACAGAACAGAGT CCTTATGAAAATAATTTCAGA ACCACAAACGCATTCTGTATG GTGCATTCCCCTGGGACAGT CGAAGCTT (SEQ ID NO: 345)
CTP64B	No significant match		CATCGCAGACATTATTAG TTTGTAAATTCAAATATTCA TTAACCTCTGTATCAGATTAA AGGCAGAGAAAAGATACACG CCCCTGGTTAACTGAACCGG GGTTTAGATAGTGTAGTCCAC CCTGGGTTCCACCAGGGAGA CCTCACCCGAGATGACAGGT CCGGTTGCTGGTGCACAGTC GAAGCTT (SEQ ID NO: 346)
CTP70A	No significant match		AAGCTTAGTAGGCACGCAATA AATAGGAGAACATGAATCAGAGT CCTCCAACCGCGTCCCTCTAA TGTCCCTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTG TCCATGTCACTTCGCTCCAGA GCAGCCGCAAGAGCATCTTA ACACCTTGTGGCCTGAACTCT CTCCCATCCTCCACTGTACAG TGATATGACTGAAACCTCATT TAACCTTTAGAACTACCAGG AGGAGGTTCCCAAGGATCCC AGG (SEQ ID NO: 347)
CTP72B	No significant match		CCATTTGCTCTAAAGAGC ATCTTAAGTGAGAGAGATCATGA CAATCTTGGCCACTCCAGGT TTTCTCATCTACTACATGATCT GTTCCCAACAATAAGCCATTG AAATTAAAGGTCTCCAGAAGT TTTATCTGGGCTGTGATTG AAAAGAAGGAAAATGAGATGA GAGACTGCCTACTAAGCTT (SEQ ID NO: 348)

CTP73B	No significant match		CCCATAGAAACATCTTAAA ACATTAGAATACTCAGGATA ATCAAGGCTAATATTCTATA AATTCTTACGTGTATTATGTA CATTAGAAAAGTGTAAATT CTCAAATTACTAACTCTAAAACC CCTTATAGTCTGCTAACTTGC ATGTAGAAACATCTGAAGTAA CATGCTGCCTACTAAGCTT (SEQ ID NO: 349)
CTP74A	No significant match		AAGCTTAGTAGGCATCAATTG GATCCTTCCTATGTTGAAAT GGAAGAATTAAATGAGCTTACA TTAATTAGTATTGTAATGTGTA AAGGAAGCCCCAGCAAAATTTT TTGAAAACCTTGATGATCCAA CGTATTACCATTTGATGTTAA AGCAAAATAAATCACCATT TTA (SEQ ID NO: 350)
CTP75C	No significant match		AAGCTTCTCAACGGCCTCCAC CTCCTTCTGCCCTCACAGCC TCCTGGCTCTGGCCCAAAAAA GTGATTCTTGATGATCCAA TGGTTTCTGCATTTAAATGG CCATTCTGG (SEQ ID NO: 351)
CTP76B	No significant match		AAGCTTTACCGCCATCTGG CTCCTGTGGAGGCCTGCTGG GACCAGGACTCTAAAGCGA CGANTTTNTGGAAGGCTTT GGTCCAAGGCCATTGCG GCTATAAACGGGGCTCCGG AACCAAAGGGAGCACACAGC TCTTCTAAATTGAAAGGTGTT TACGCCGAGATGAAACAGA ATTCTATTGGCAAGAGATG CGCTTATGTATATAAGCAA AGAACACACAGTCACCTCTG GCGGCAAACCAACAAAC AGNAGTCATCTGGGGAAAG TAACTCTGGGCCATGGAAAC AAGTGGCATGNGTCCGTG CAAATTCCGAAGCAATNTCC TGCTAATGCCATTGGACACAG AATCCGAGTGTGCTGTACCC CTCANAGGATTTAAACTAAC GAANAANCAATAAATAATGT GGATTGCGNTCTNGG (SEQ ID NO: 352)

CTP77D	No significant match		CAATTGGTTAGTTTATTC AAATTGTACAAAATGGCCATA AGCGGCTATAAAAATTCGT TTCGGAACACGTGGAAATT AGAAAGAACAAACAAAGCAGGT TATCATTTCACAGTGTAAATGG AAAAGCTCTCTGTAGGCAG GAATCACAACCTTCCTTCTT CTTCCCCAGTCTCTCGTGGTC TCCTTCCCAGGAGCGCTCGAA TGAAACTGGTAAACCCCGATT CCGTCGATCGC (SEQ ID NO: 353)
CTP79B	No significant match		CATATATATTCTTTTATTCT TGTATACCTCCAAAACAG AGACATTCAACAGTAGTTAGA ATGCCATCTCCAACATT AAAAAAACTGCACCCCCCAAT GGGTGAACAAAGTAAAGAGTA GTAACCTAGAGTTCAGCTGAG TAAGCCACTGTGGAGCCTAA GTGGTGAGGTCTCCAATT AGAGTGTGTGTCTTCAACTT GTATCATCATTTAGCGGTAA AAGCTT (SEQ ID NO: 354)
CTP81A	No significant match		CCAAAGAAGTGTATTAAACA TTGGGGCCTCAGCGGGGCC AGAGAGGAAGTGGGTGCTAG AGGCTCTGAGGCTCAGGGC AAGGCCTGCAAGACAGATCC CATTGCTCAGGAGGGCAGCCC AGATTGCAAATGGAAGACAG GCCATGGTAGCGGTAAAAGC TT (SEQ ID NO: 355)
CTP92A	No significant match		GCACTAAATTCAAACCAATGA CCTCCCATGTTCTAATTCTGA TTGTTTAATCCAACGGGAGG GTAAACGGGAGACTCTTGG CCTGTCAGTGACAAATGGTT TGTAAAAAAGAAAAAATAATA CGATATACAAGTAAGTATAAC TAGCACTCAAGCTT (SEQ ID NO: 356)

CTP99A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAACAGATTATAT AGCACTAAAAAACCATTTGT TACATTAATGTCGAACTCAA ACTTTAAAGAGTATAGAGAA CTACAAAATGGAAAAAGGAAG CAGATATACGCTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTCCCTA TTATCATAATGACCACACTGC CCGTCCCTAAACCACTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 357)
CTP103JJ	No significant match		AAGCTTCGGCATAGTTACTGT TTGATTTAAGTTTATATAG TTCTTAGTTTGAAGAAATCCT TCAAGAACAGTTCTCTAAAG AGCATGTTTAATTAAATGCTA ATTAATTACCTTCTTAGTTT CCAATTAGTAGGCCACTTC AATGTCTATTAAAGTGAAATAA ACCTTCTGAACCTAAACATT TAAATCGATTAAAAATTGTGTC AAAAT (SEQ ID NO: 358)
CTP104I	No significant match		AAGCTTTTTTTCAAAACG GATTGTAAAAACTGTATTCT TACACTGTGCACAAACCTTT ATACTAAATAATATCAAACTA CATTCTCAGAAAGATGTTTC TAGTATTCTTAGGTCACTT CCATATGTAGTATGTACAGTG AGACCACTTTAAAAAGCAA TGACTTAGGCAAACCAACCCCT AATGGTTTGTAGACCATT CCTGTTTAATTAAAAATCAT AGGGTTGTGCTTCTGTATAAA GTTTGTACATTACAATGTAA AATACTGACATT (SEQ ID NO: 359)

CTP109P	No significant match		ATGCAACCACACCGAATTAT TGAACATTTCACAAAGTGATT CATTAAAGGAAGGCCTTTTCG TGCCTATATTGGTTACCATCA CTTTGCCCTATCACAACT CATGGTAGTCCTGCATGT AGCAGGAACTCAACAAATGTC TGCTAAATTGACAGATGGAGC CCCAGACGACCTAAAATTGC ACTTTAGAAGCACTTACTTCA TCCTGAGCTATTATGAATAAG GAACCTCAAGTGACTGTTAAA GCATTCTACTGATGAGTTGGT AATGTTCTAACAGCAACATATC TCAAAGGAAAGGATATTGAGT TTGTCTCCACCATAAAATCCT ATTTTAAACAAAGGTACTACT AAAAATGGTCTTCCAAGGC CTCAGCAGAGGTTCTAAAGAG ATGTGACAATATGCCGAAGCT T (SEQ ID NO: 360)
CTP110A	No significant match		AACATATAAAAACATTATTCA CTAGGAATAATTGGCAGAC ACAATCCAGTGAAAGCAGCTC ATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAA AAAGAAAGGAAGACAGGCAA ACAAGTGTACAGGAGCAA CAGACTCAAGGTCAACCCCCA CAAGACACCCCTGCACAGCAG GGACGGGGACAGGGAGGAT GACCTCTAGGGCCTGTGCC TTCGCAGAGGTGCTCGCGG ATGGGTGTGGCTTCTGGGT GTCTCCTCTGTCTCATCTAT GCCGAAGCTT (SEQ ID NO: 361)
CTP111A	No significant match		AAGCTTCGGCATAACGATCC ATTCTCCTCGGCCTCCCAAAG TGCTAAGGTTCCAGGCGTGA ACCACCATGCCAGCCTGTTC TTTTTTTATCTCTAGGTGGTG CTCTCCAGCTGTAGTAGAAAT AGCATTGTATTGGATCTATT TTTAAATAGGGACTAAATAC AGACCATTGTTAGAGTGAA ATGCCAAACAAGAACGAGATT TTCTCTGGCT (SEQ ID NO: 362)

CTP116A	No significant match	AAAAGAGCATACTTATCAGTT GAATGGGGATAGAGGTTTAG ATATTTCCAAAATATTATAAA AACACTTCATTGTTGAGAAAT CACTTACAGAATGGTGCTAT CAAACAAATAATTATAAAATT TAAAGCACAAGTCACATGTTT TGTAACTCCTGTGTGAATT TTTAGCTGTGACATTTAATTG AAAACATCAGATATGTTTGG AAAAGCTTAATTGAGAACAA ACTGAAGGAAGTTAACAG ATCTATATGTAGTTAGCTATT ATGATGATGCTTATTGACAG TATATTGCTAATATAATTCTC ATGAAATCTGAAGTTAAATAG TTTCGTTGTGGAATAGTGTCA CTGTAACATTCCTTACGAA GTTCAATAAACCAAGCTTGCC ATAAAAAAAAGCTT (SEQ ID NO: 363)
CTP124B	No significant match	ATGGCAAAGCTGGTTATTGA ACTTCGTAAGGGAAATGTTAC AGTGACACTATTCCACAAACGA AATTATTAACTTCAGATTCA TGAAGAAATATATTAGCAATAT ACTGTCAATAAACGCATCATCA TTAATAGCTAACTACATATAGA TTCTGGATTAACCTCCTTCAG TTGTTCTCAAATTAAAGACTTT CCAAAACATATCTGATGTTTT CAATTAAATGTCACAGCTAAA ATAAATTACACACAGGAGTTAC AAAACATGTGACTTGTGCTTT AAAAATTATAATTATTGTTT GATAGCCACCATTCTGTAAGT GATTTCTCAACATGAAGTGT TTTATAAAATATTGGAAAATA TCTAAAACCTCTATCCCCATT CAACTGATAAGTATGCTCTTT ATAAAAAAAAGCTT (SEQ ID NO: 364)

CTP126A	No significant match		AAAGAAAGTAATTATGGAAC AGATTTTAACATTGTAATA CTAAATGATCCTTCAGTTGA AGTTGATATATATTGTAAACCT TTGTGAAATTGTATCCTTATGA AAATACCACTTTGGAAGA GAGAATCCAACATGTAATAT TTAATTAAAACAATCCATGTT ACCCTATCCCTGCTCAATTAA ACAGTGTATATAGGTCTAATA ATAGCTCTGGAGCAACTTTA TCATGAGTCAAATATATTAAAC ACATTGATGTCTTCTGGTAT ATCTGAAAACAAGAGGTAGAA GTCCTGTTGAGAGTCTTAAA ATAAACTATTTACAAATGTA AAAAAAAAAGCTT (SEQ ID NO: 365)
CTP133B	No significant match		CCAAAAAGGCCATGCCAG AGGGAAAGTTGGAAACGAAA GCCAAGTTTCATTTAAAGG AACACATAAGAGGTTAGCCA GAGAAACTTGAACCAAAGAAA AGACAGCACGCTGTTCAGAAT GGTCAATAAGAGCCTAAACG GTACCCTCGGAATGAAGCTT (SEQ ID NO: 366)
CTP134A	No significant match		CCAAAAAGGCCATGCCAG AGGGAAAGTTGGAAACGAAA GCCAAGTTTCATTTAAAGG AACACATAAGAGGTTAGCCA GAGAAACTTGAACCAAAGAAA AGACAGCACGCTGTTCAGAAT GGTCAATAAGAGCCTAAACG GTACCCTCGGAATGAAGCTT (SEQ ID NO: 367)
CTP143B	No significant match		AAGATTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGA GAGAGGCAGCAGCAGACTCC CTGCTGAGCTGGGAGCCAAC TTGGGACTCGATGCCGGGAC CCCAGGATCATTACCCGAAG CTT (SEQ ID NO: 368)

CTP144B	No significant match		GGGTAAATCCGTCAGTTAC TGTAAATATGCCTTGACAAA CTGGTAACTCATGTCCCACATCC CAGTCCCCAGTACTGGACCA GGGAAACTCCAGGCCACAGTT GAGGGAAAGGCCACCTGTTGG CTCTGGGGCAGCAGGTACATC CAGTGGGCTTCAGGAGTCAC CAGGCCTCTGACCAGTTCCCTC CCCACCAAGCAGTTCAAGAGT TGTCCGCCAAGTCTATTCAC ACCTCTCGTGTATGCCGAAGC TT (SEQ ID NO: 369)
CTP145B	No significant match		GGACTGATAATAATAGGATT TATTCTAAAATTATCTTAGA GCTTCAAAGAGTATAACACA CAGATCTTACCAACCACACCC CCCTGCCTATACAGGAAACA ACCAAGTTGTGAGAACATTAA TCATGCACAGACACATCAGG GCTTGCAGGTGCTACACAGG ATCACAAATGCTGTTCCACA TCATGTCTCTGTTATGCCGA AGCTT (SEQ ID NO: 370)
CTP149B	No significant match		AGGAAGAATAAAAACATATAA AAACATTATTCACTAGGAATA ATTGTGGCAGACACAATCCAG TGAAAGCAGCTCAATCCTGCT CAGTTAGGCTAGTTGAAGAAC CATACTTTAAAAAAAGAAAGG AAGACAGGGCAAACAAGTGT TACAGGAGCAACAGACTCAA GGTCACCCCCACAAGACACC CTGCACAGCAGGGACGGGGA CAGGGAGGATGACCTCTTAG GGCCTGTGCCTTCGCAGAGG TGCTCGGCAGGATGGGTGTGG TCTTCTGGGTGTCTCCTCTT CTGTCATCTATGCCGAAGCTT (SEQ ID NO: 371)

CTP150A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAACAGACAAGTTACAT AGCACTAAAAAACCAATTGT TACATTAATGTCGAACCTCAA ACTTTAAAGAGTATAGAGAA CTACAAAATGGAAAAAGGAAG CAGATATACGCTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTCCCTA TTATCATAATGACCACACTGC CCGTCCCTAAACCACTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 372)
CTP154A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAACAGACAAGTTATAT AGCACTAAAAAACCAATTGT TACATTAATGTCGAACCTCAA ACTTTAAAGAGTATAGAGAA CTACAAAATGGAAAAAGGAAG CAGATATACGCTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTCCCTA TTATCATAATGACCACACTGC CCGTCCCTAAACCACTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 373)
CTP164A	No significant match		AAGCTTCGGCATA CGGTGTG AGGTTACAGTCCAGTTTG TG TGCTTACTACACGGTTGGT TACAGGACTCTGTGCATTGT AAAACATAAACAGCATGGAAA AGGTTAAATACCTGTGTGCAG ATTGTAAGATCTGGTCCGGAC TTGCTGTGTATATTGTAACGT TAAGTAAAAAGAACCCCCCT TTGTATCATAGTCATGCGGTC TTATGTATGATAAACAGTTGA ATAATTGTCCTCAGACTCTT ACTATGCTTTTAAAATTAAAG AAAAATGAAATATAGAAAAAA TCTTCCTATGCAATTAAACCTG G (SEQ ID NO: 374)
CTP179K	No significant match		AAGCTTACCA GG TAGAGGG CTGTTGGAGGTATGGACGCA CACAGGAGGGCCAGGCCAAG GCACGAGTTTCAGTGAAGGG GGGTAAAGCATACAATTAA AATGTTGCAATTAAACTGGT TTGTTAAATATC (SEQ ID NO: 375)

CTP185C	No significant match		CAGCGAAGAGGCATTAAAGAT TCATGCCATAAGTTTACAA AACATGTTGTGTATGTTGAAT TCAAGAGATTGATCCATT CAGAGACTGCACCTCTAAAA TGTTCTTTACATCTGTTA GTGGATCAAAAGCTT (SEQ ID NO: 376)
CTP197A	No significant match		ATGGTGTGTGTGGGTTCAA ATAGTTTATTACACCTCTGTAGT GGAAAAACAAGGAGAAATAAA ATCTGCTTACAATGGCCAAA TTTATGGAGAAGGCCCTAAAGT TGCTTCCCCAAATCACAAAT CTGATTCAAGAGAAGGAAAAAA AATGATGAAAAACATCTCATC ACACAAAACTCAGTGTGGTGT CTCTGATAGTCATCAGCCAGC AGAAGCTT (SEQ ID NO: 377)
CTP202C	No significant match		AGAAAAAAAATTGATAATTAG GTGCAGATAGAAAATATGAAT TAGAAGAGGTTAATTCAAGTG ATCAGCCTGAAAGTTCAGCTT CATTAGCTTGTGGTAAATCC ACCACTTCAGATAGTAACCAA AGTAAATTAAATTCATAAG AATAAAGTAATCCCTGAAAAG AATTCACTTTTCCCAGAAG AAGCTTATAATTAAAAAAAAAA AGCTT (SEQ ID NO: 378)
CTP208B	No significant match		CTAGAGGAAGTGCTTTTATT TTTAGATCAACCAAACATATT AATATAAAACCTTTAATATA CAAACGTAAATCACAAATTGCA TCCACGTAGCAGCGAGGGAA TGGGGTGTGCAGGAAGCTT (SEQ ID NO: 379)
CTP215B	No significant match		AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAAGA GGAAATTCTCTTCTAAGGAGG AGCCACTTAGCAGTGGACCT GAAGAGGCTGCTGGCAACAA GAGCGGCAGCTCCAAGAAAA AGAAAAAGCTCCAGAAGCTAT CCCAGGAAGATTAGAATGGA CATTTTACCAAGGTGGGGCAA CCCACATGATTCAAACCCAC CCTTATATCCCAATAAAAACA AATTCACAGG (SEQ ID NO: 380)

CTP222D	No significant match		AAGCTTACCAAGGTGAAGAGT GGGGTTGTCATGACCTTGGC TATGACGCCAGCATTGAG GTGGCTCCCTCTATTCTTAC TTGGGCATCATAGAAAACGT GTCTCTGGGGATTAAATCTTA GAGAAAAATAAACGCTTCTG CTG (SEQ ID NO: 381)
CTP306B	No significant match		AAGCTTCTGCTGGTATGGAAA GCCTTCAAGGAAGAGGGTAA TGAGGGGAAAGAAGTGTGT GCCAAAGTGACAGCATTCACT GAGGAATAAAGAAAGGAGCT CAGTGGTAGCAGGATGTTGA GCTTCCAAGAAAATCTGGTGG TGGTGAGAAAGTGGCTGCTG TGCACTGCAAGGAAACAGAG CGATTAAGAAAGAGATGTGA CAGGGTAGGTGGAAGAGATA GCCAGAAAGTTAGAAATGGGTT ACACTGAAGAAGTAAATTATT TGATTAACAATAAGTAAATAT ACTGGGGATAACAAAAGCCT GATTCTCCACTGTCTCAGAA GGGATTGCAAGTATGG (SEQ ID NO: 382)
CTP308KK	No significant match		AAGCTTCTCTGGATGAACAG TTAAATGGAACCTGGAAACCT CTTCCTGGGATTATTCCTTAA GCAAGGCAGTGTCAAAGGCA ACCCTCCCAGCAAGACTTCAG AAAACAGCTGGCAGAACTACA GGATCTGGTGTCTGGTGTGA AAATACTCTCCTCCCTGTTCA AATGATTAGAACATGTCAA AGTGTGCTAGCTTCATCACA TATACATAACAGCATTATGTAT CAAGTTACCTGTTCAAACAA GGAGCAGGCTTCCCTTTTG ACTTAAATGACATGAAGTGAG AAAAAAAATGAGAATAACCNT CNNGGAATTATAGAGGGTTA TAATTCTATCCNACTATTCA ATAAAAGCCATCACGGG (SEQ ID NO: 383)

CTP309A	No significant match		AAGCTTTCTGGCTTCCGA AGGTAAAATGTTGCCGAAGT TGCTCGTACAAGAGCGTAT CCCAGAAACCATAAGGCTACA ACGCCGAAATTGGGAGCTAC ATCAGTTGAATCGATTCAAG AAGGTACATCGCTCAGGCCGT CCCAATACACTGACCTCAAAC TATCAGGCTCAAATCTTAGAG TGGGTCAACACAAGCCCCACT CAATGCAGAACAAATCCGAGT CAAACCTGCATGAAAAACACGG TGTGTCCGTGTCTGTTGAAAC TCTTCGCAAGTTTTGCGAGA TTCAGGCATGGCTTCAAACG CACCCGCCACAGCTTG (SEQ ID NO: 384)
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REMARKS

This amendment to the specification is made to replace the original sequence listing with a sequence listing that complies with the sequence rules, 37 C.F.R. §§ 1.821 - 1.825.

In the event that there are any questions concerning this amendment or the application in general, the Examiner is respectfully urged to telephone the undersigned representative so that prosecution may be expedited.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with Markings to Show Changes Made**".

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 400742000200. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

Dated: April 5, 2002

By:


Terri Shieh-Newton
Registration No. 47,081

Morrison & Foerster LLP
755 Page Mill Road
Palo Alto, California 94304-1018
Telephone: (650) 813-5649
Facsimile: (650) 494-0792

Version with Markings to Show Changes MadeIn the Specification

On page 50, the paragraph beginning [00316] has been amended as follows:

1. Combine in a microfuge tube:

1 ug total RNA/8ul DEPC treated water (Ambion #9922)
 2ul (1 ug) Oligo d(T)22 -- T7 (Operon, 5'TCT AGT CGA CGG CCA GTG AAT TGT AAT
 ACG ACT CAC TAT AGG GCG 3') (**SEQ ID NO: 385**)

On page 50, the paragraph beginning [00322] has been amended as follows:

1ul Template Switching Primer (1ug/ul) (Operon, 5'-AAG CAG TGG TAT CAA CGC AGA
 GTA CGC GGG-3') (**SEQ ID NO: 386**)

Please substitute **TABLE 1** with **TABLE 1** amended as follows:

TABLE 1

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C1	c-myc	X95367	503	caagaggacgaagaagaaa ttgatgtt <u>(SEQ ID NO: 1)</u>	cgcttccgcaacaagtccctt <u>(SEQ ID NO: 2)</u>
C2	c-erb B-2	AB008451	507	gtgttgatggtgactggaaat g <u>(SEQ ID NO: 3)</u>	gtactccgggtctctgctgttag g <u>(SEQ ID NO: 4)</u>

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C3	Catalase	AB012918	506	gacaaaatgctcagggtcgct tt <u>(SEQ ID NO: 5)</u>	ccatgctgcataaagggtgtga atc <u>(SEQ ID NO: 6)</u>
C4	p53	AF060514	506	actttcgacacagtgtgggt g <u>(SEQ ID NO: 7)</u>	c gagaggtagattgccccctct tt <u>(SEQ ID NO: 8)</u>
C5	Metallo-thionein 2	AB028042	330	gactccagccggcccctct <u>(SEQ ID NO: 9)</u>	aggaaatgttagtagcaaacgg gtca <u>(SEQ ID NO: 10)</u>
C6	Interleukin-2	U28141	490	tcacagtaacctcaactcctgc ca <u>(SEQ ID NO: 11)</u>	gtcagtgtgagaagatgttt gaca <u>(SEQ ID NO: 12)</u>
C7	Metallo-thionein 1	D84397	376	gctctgactctccctgtggctg <u>(SEQ ID NO: 13)</u>	caaacggaaatgtaaaaaa caagtca <u>(SEQ ID NO: 14)</u>
C8	Intercellular adhesion molecule-1	L31625	507	caagtcagagcttggaaattcccc at <u>(SEQ ID NO: 15)</u>	tggaaagaactcccaactgg acat <u>(SEQ ID NO: 16)</u>
C9	Multidrug resistant protein-1	AF045016	510	ggcaaagagataaaggcacct gaatg <u>(SEQ ID NO: 17)</u>	atagatgccttctgagccagc ag <u>(SEQ ID NO: 18)</u>
C10	Beta-actin	AF021873	509	aagtattctgtgtggatcgag gc <u>(SEQ ID NO: 19)</u>	caacttcaaggcaattaacca ccc <u>(SEQ ID NO: 20)</u>
C11	Tumor necrosis factor-alpha	S74068	510	caaattgcctccaactaatcag cc <u>(SEQ ID NO: 21)</u>	acaggggcaatgtcccaaag taga <u>(SEQ ID NO: 22)</u>

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C12	Nitric oxide synthase-1, inducible	AF077821	510	gtccttgcatcctcattggacct <u>(SEQ ID NO: 23)</u>	gctgtttgctgcaccatctttt <u>(SEQ ID NO: 24)</u>
C13	BRCA-1	U50709	499	tttctgggtattgcaggagaa aa <u>(SEQ ID NO: 25)</u>	agtctgcagcagttctggaaat ct <u>(SEQ ID NO: 26)</u>
C14	Metallothionein-IV	AB028041	385	ctgtgacagcattggagcttc g <u>(SEQ ID NO: 27)</u>	tttacatgagtgtcaccacc ca <u>(SEQ ID NO: 28)</u>
C15	Tumor necrosis factor receptor	AF013955	507	ggctctgttgtggaaatatacc cc <u>(SEQ ID NO: 29)</u>	cagttcacacaagagacgc ttca <u>(SEQ ID NO: 30)</u>
C16	c-kit	AF099030	504	gagacttggctgctagaaaat cctcc <u>(SEQ ID NO: 31)</u>	aattgatccgcacggaatgg <u>(SEQ ID NO: 32)</u>
C17	CD40 ligand	AF086711	508	ccaatttgaaggccttctcaagg a <u>(SEQ ID NO: 33)</u>	gagtaagccaaagacgtg aagcc <u>(SEQ ID NO: 34)</u>
C18	Cubilin	AF137068	508	tgaatgcacacatgacttctgg a <u>(SEQ ID NO: 35)</u>	tgatggatacactgcatact ct <u>(SEQ ID NO: 36)</u>
C19	Alkaline phosphatase	AF149417	499	cagatgtggagttatgagatgg acga <u>(SEQ ID NO: 37)</u>	agaccaaagatagagtgg ccg <u>(SEQ ID NO: 38)</u>
C20	Pancreatic lipase	M35302	490	actcagagagcatcctcaacc ctg <u>(SEQ ID NO: 39)</u>	cagaagctgtgcactgtttctc ct <u>(SEQ ID NO: 40)</u>

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C21	Apolipoprotein CIII	M17178	236	agccctggaggaagaggacc cct <u>(SEQ ID NO: 41)</u>	cagaggctggagttggttgg cc <u>(SEQ ID NO: 42)</u>
C22	Interleukin-4	AF054833	301	tacacctcccaactgattccaact ctgg <u>(SEQ ID NO: 43)</u>	gtcttgttgcctatgctgtgag gttc <u>(SEQ ID NO: 44)</u>
C23	Tissue inhibitor of metalloproteinases-1	AF077817	492	cttgtcaactccaaatcgta tca <u>(SEQ ID NO: 45)</u>	gtgcataatccctggctcttgg cag <u>(SEQ ID NO: 46)</u>
C24	Ubiquitin	AB032025	341	gcagatttgtaaagaccctga cggg <u>(SEQ ID NO: 47)</u>	acttcttcttgccgcagtgtaca gcac <u>(SEQ ID NO: 48)</u>
C25	Matrix metallo-proteinase-2	AF095638	260	agcggtcagtgtgaaggaggat 99 <u>(SEQ ID NO: 49)</u>	tgtcccaggcacgtgaagt ca <u>(SEQ ID NO: 50)</u>
C26	Interleukin-6	U12234	493	cctggtccagatgctaaagag caaggt <u>(SEQ ID NO: 51)</u>	acctggctccgaaacatcga ggatatt <u>(SEQ ID NO: 52)</u>
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	517	tggaaattgaacccaaacaaa ggca <u>(SEQ ID NO: 53)</u>	cccgcatcctctaactggacct tgt <u>(SEQ ID NO: 54)</u>
C28	Phenol sulfotransferase	D29807	495	gctcccccagacccgttggatc <u>(SEQ ID NO: 55)</u>	gcatcaaagcgctcattctgg gc <u>(SEQ ID NO: 56)</u>
C29	GRP94	U01153	503	aatcccagacatccctgatca aagac <u>(SEQ ID NO: 57)</u>	cacttcttctgtgacccacaat ccca <u>(SEQ ID NO: 58)</u>

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C30	E-selectin	L23087	506	ttacacggttgtcaactggat gaaa <u>(SEQ ID NO: 59)</u>	caccagggtccccactattc atgttt <u>(SEQ ID NO: 60)</u>
C31	gastric lipase	Y13899	501	tgcactatcatcagagcatgcc tccct <u>(SEQ ID NO: 61)</u>	tccatccttaggaccccagat catgac <u>(SEQ ID NO: 62)</u>
C32	HSP27	U19368	503	ggacccttccgcgactggta c <u>(SEQ ID NO: 63)</u>	tgatttctgccactggggct <u>(SEQ ID NO: 64)</u>
C33	IL-10	U33843	472	cgggtccctgtggaggacttt aaga <u>(SEQ ID NO: 65)</u>	ggtatgacggggttctccaag cagtt <u>(SEQ ID NO: 66)</u>
C34	caveolin-1	U47060	470	tccgaggggcacctctacacc gt <u>(SEQ ID NO: 67)</u>	ttCCAACAGCCTAAAGAA CGG <u>(SEQ ID NO: 68)</u>
C35	H-ras, p21	U62092	193	accatccagctcatccagaac cacttc <u>(SEQ ID NO: 69)</u>	tggcaaatacacagagaaa GCCCTCC <u>(SEQ ID NO: 70)</u>
C36	rab2	M35521	514	agacaagaggttcagccagt gcatga <u>(SEQ ID NO: 71)</u>	gtgtgtggcatttagtagcagc gtgctg <u>(SEQ ID NO: 72)</u>
C37	rab5	M35520	521	aaggcctagtgttcgttttgaa ggg <u>(SEQ ID NO: 73)</u>	ttggctgcgtgggttcagtaag gtcta <u>(SEQ ID NO: 74)</u>
C38	rab7	M35522	508	ccccaaacacattcaaaaccct cgata <u>(SEQ ID NO: 75)</u>	tgtgtgtcagggtgaagtgtt tgg <u>(SEQ ID NO: 76)</u>

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C39	APO CII	M17177	256	ctggttctgtgcttgtccctggta <u>(SEQ ID NO: 77)</u>	ggtcagtaaaaatccctgcgtaaagtgc <u>(SEQ ID NO: 78)</u>
C40	endothelin-2	X57038	330	ctgtccgcctctgtccccctgtt <u>(SEQ ID NO: 79)</u>	ggagtagggacaacaccca gccc <u>(SEQ ID NO: 80)</u>
C41	FGFR2	AF211257	498	tgattgtcttcgtccacaaaaatgcc <u>(SEQ ID NO: 81)</u>	taaatacagaacgcacaaca cgccgac <u>(SEQ ID NO: 82)</u>
C42	leptin	AB020986	503	gccttaccctcagggaccctgca <u>(SEQ ID NO: 83)</u>	gcatgaacaaaacagcctcc gcc <u>(SEQ ID NO: 84)</u>
C43	prosta-glandin D synthase	AB026988	510	agggtccctgcagcccaactc <u>(SEQ ID NO: 85)</u>	gggcggcggtcacctacttgtt c <u>(SEQ ID NO: 86)</u>
C44	paraoxonase-2 (PON2)	L48515	472	caggactccacagctttcccc agata <u>(SEQ ID NO: 87)</u>	ggtgaaatattgatcccatttgc tgca <u>(SEQ ID NO: 88)</u>
C45	beta-glucuronidase	AF019759	493	cggcgtatgtggacgtcatctgt <u>(SEQ ID NO: 89)</u>	agacagaggctcagagggc gaacg <u>(SEQ ID NO: 90)</u>
C46	caveolin-2	AF039223	359	ctccagggtggcttcgaggac gt <u>(SEQ ID NO: 91)</u>	tggggtccaagtgcctcagtcgt g <u>(SEQ ID NO: 92)</u>
C47	matrix metallo-proteinase-14	AF032025	350	ttcttcaaaggagacaagcact gggtg <u>(SEQ ID NO: 93)</u>	tagcctggctctacacctcagct ctgg <u>(SEQ ID NO: 94)</u>

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C48	matrix metallo-proteinase-9	AB006421	471	gattctccaaggcaaggcac gc <u>(SEQ ID NO: 95)</u>	tcacgtagcccactcgccac c <u>(SEQ ID NO: 96)</u>
C49	IL-8	U10308	498	gtggcccacattgtaaaaactc agaaa <u>(SEQ ID NO: 97)</u>	gaccaggcaaggttgaaa agggactc <u>(SEQ ID NO: 98)</u>
C50	keratinocyte growth factor	U80800	482	caatgacatgactccagagca aatggc <u>(SEQ ID NO: 99)</u>	ttgccataggaagaaagtgg gctgtt <u>(SEQ ID NO: 100)</u>
C51	decorin	U83141	505	gattaaaaatggaggcctccag ggaat <u>(SEQ ID NO: 101)</u>	ataattccaagctggatggca gagcg <u>(SEQ ID NO: 102)</u>
C52	glucose-6-phosphatase	U91844	508	ctggggatctcagctgcaggat ttct <u>(SEQ ID NO: 103)</u>	atccttccctcctgcctctc ctc <u>(SEQ ID NO: 104)</u>
C53	TGFB-1	L34956	489	gacccttcctgctcctcatggcc <u>(SEQ ID NO: 105)</u>	cttaaatacagccccggcgca gcg <u>(SEQ ID NO: 106)</u>
C54	ZAP36/ annexin IV	D38223	488	gacacgtccatgttccaga gggtg <u>(SEQ ID NO: 107)</u>	ccagatgtgtcacccatgtga aggag <u>(SEQ ID NO: 108)</u>
C55	N-ras	U62093	224	gttggagcagggttgttggga aaag <u>(SEQ ID NO: 109)</u>	gcaaatacacagaggaagc cttcgcc <u>(SEQ ID NO: 110)</u>
C56	K-ras	U62094	228	gtagttggagctggtggcgtag gcaa <u>(SEQ ID NO: 111)</u>	ggcaaatacacaaagaaag ccctccc <u>(SEQ ID NO: 112)</u>
C57	p38 MAPK	AF003597	506	ctggtgaccatcttatgggag cagat	tttgc当地atctcggcat ctgg

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
				(SEQ ID NO: 113)	(SEQ ID NO: 114)

Please substitute **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY**, with **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY** amended as follows:

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C1	c-myc	X95367	caagaggacgaagaagaaattgttgttctgtggaaaaaggcag gccccctccaaaaggccatcggttcccccctgcgtggaggccac agcaaacctcctcacagcccactgtcctaagagatgccatgtcca cccatcagcacaactacgcggcaccccccaccaggaaaggactat ccgcgcgcaagaggcgcagggtggacagtggtagagtccctgaaac agatcagaacaaccgcaaattgtccagccccaggcttcgacacg gaggagaatgacaagaggcgaacacacaacgtttggagcgccag aggaggaacgagctgaaacggagcttgcctgcgtgatcagatc ccggagttggaaaacaatgaaaaggcccccaaggtagtgatccctaa aaaaggccaccgcgtacatccctgcgtccaaaggccgaggagaaaag ctccctccgaaaaggactgtgcgaaagcg (SEQ ID NO: 115)
C2	c-erb B-2	AB008451	gtgttgatggacttggaaatggggcagccaaggggctgcagac ctccctcacaggaccgcgcctccagcgttgcgttgcac acggtacccctggcccttgcgttgcactgtgttgcgttgc gcagccccagcgttaatatgtgttgcgttgc cccccccttgccttgcgttgc caactgttgcgttgc aagaatgggggtgtcaaaagacgttttgcgttggagtgctgttgc ccggagttgcgttgcgttgc ctccctccatcgttgcgttgc gatccatcgttgcgttgc acaggcaggacccggactac (SEQ ID NO: 116)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C3	Catalase	AB012918	<p>gacaaaatgctcagggtcgtttgcctatcctgacactcaccggcac cgcctgggacccaactatctcagataccatgtgaactgtccttccggct cgagtggccaactaccaacgggatggcccatgtgcattgtcgacaaat cagggttgtgtccaaattactaccccaatagcttagtgctctgaaca acagcgttgtgtccatagcatagcagccaatgtcgccagatgtcag cgctcaacagtgcacatgtcaactcagggtggacccatct atttgaaggtaacttgtgtgaagaggagaggaaacgcctgtgcgagaac attgctggccatctgtcaaggacgcacaactttcatccagaagaaagcg gtcaagaacttcagtatgtccacccctgactacggggccgcattcagg ctctttggacaaatacaatgctgagaaacctaagaacgcgattcacac cttagcagcatgg</p> <p><u>(SEQ ID NO: 117)</u></p>
C4	p53	AF060514	<p>actttcgacacagtgttgtgccttatgagccacccgagggtggctt gactataccaccatccactacaactacatgttaacagttctgcattgg aggcatgaaccggccgcacatccactatcatcaccctggaaagactc cagtgaaacgtgtggacgcacagctttaggtacgcgttgttgcc tgtcccccggagagaccgcggactgaggaggagaattccacaaga agggggagccctgtcctgagccaccccccggaggtaccaagcggc actgcctcccagcaccagctcctcccccccaaaaagaagaagccac tagatggagaatatttcacccttcagatccgtggcgtgaacgcattg atgttcaggaatctgtatgtcggactgtgaaaggatgccagagt ggaaaggagccaggggaaagcaggctcactccagccacctgaag gcaaagaaggggcaatctacctctcg</p> <p><u>(SEQ ID NO: 118)</u></p>
C5	Metallothionein 2	AB028042	<p>gactccagccccccttcgcctatggatcccaactgctctgcggc ggggggctctgcacgtgcggcgtccgcataatgc当地aggtgc gatgcacccctgc当地agagactgtgtccctgtgcggcgt tgccaaatgtgcccagggtgc当地gtcaaggcgcatcgaca gactgtgtgc当地gtatgtggggagagccttccatgtatg gcaatgc当地gtacaaacctacatgttgggggttttggc ggtccaaatctgacccttgc当地actacattcct</p> <p><u>(SEQ ID NO: 119)</u></p>
C6	Interleukin-2	U28141	<p>tcacagtaacctcaactccgtccacaatgtacaaaatgc当地 gcatgc当地actgc当地gtgtactgtgc当地acactgc cacattacttcaatgtctc当地actgtggatt tacatgtgtttgaatggagttataattatgagaaccccaact ctccaggatgc当地cacatttaatgttacacgc当地 cccaaagaaggccacagaatttac acacccatgtctc当地actc当地agaactcaaaa acctggaggagactgt aggttacactcaaagcaaaaacgttc当地actgt gagacagacacaaggaaatt aatcagcaatatgatgtacacttctgaaactaaagg gatctgaaac aagtacaactgtgaaatgtatgt gagc当地gagacacaaccattacagaattt</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
			ctgaacaaatggattacccttgtcaaaggcattttcaacactgac (SEQ ID NO: 120)
C7	Metallothionein 1	D84397	gctctgactctccctgtggctgcctggacccctccgcctcgccctgcctcgccctgcctggctcgagatggaccccactgtctgc tccaccggtggtctctgcacgtgcgtggctctgcataatgcaggagt gcaaatgcacctccctgcagaagaagagtgtgtctctgtctgcgtccccgtgg ctgtgccaagtgtgtcccaagggtgcacatgtcaagggtgcgtcgacaa gtcagactgtgtgtccatgtgtgagaacacactgttcctgttatag agaagcaacatgtacaacccatgtcgtttaaaggcatttttcatatcact ctgactgtttctacattcccgttt (SEQ ID NO: 121)
C8	Intercellular adhesion molecule-1	L31625	caagttagactgtggaaattcccatccatggctaagctgtttccca aggaggactggcaatgggtatacagtttagttggcgcacatgcccagg acaacccactgagccccatactcccccgtcactgacactgacccctgt ttagccgtctctcccccatacgcatctgtctgtactgctcacatgc ctgcatgcctgaacacgaatgaccactactggcagctaaactgtgg gtcccatgaaactgccaacccctatgtgtccctgcctggctgtttccat ctcgggtggcaccatacaggacacagactctggcagccccaaattcc gcagagacgaggcccgtcaggcgtggcagaagagggccggcga ggattccctgtcccaagctcccgaaagttctctgttagtaataaaagctgtct gtgggcgtgtctgtgtgagtgagtgaggagggtgtcatgtccagttgg agtctttcca (SEQ ID NO: 122)
C9	Multidrug resistant protein-1	AF045016	ggcaaaagagataaaggcacctgaatgtccagtggctccgagcacacc ggcatcggtctcaggagccatccgtttactgcacatggccgaga acattgcctatggagacaacagccgggtcgatcacatgaagagatt gcaggcagccaaggaggccaacatacaccacttcatcgagacactc cctgagaaaatacacaacaccagactggagacaaggaacccagctct ctgggtggccagaaacagcgcattccatagctcgccgtttagaca gcctcatatttgcgtttggatgaagctacatcagactgtgtgatcaga aaaaagggtgtccaagaagccctggacaaagccagagaaggccgc acctgcattgtgtcgcaccgcgtgtccacatccagaatgcagatt aatagtgggtttcagaatggcaaaatgcaggagcatggcacacatca acagctgtggctcagaaggcatctat (SEQ ID NO: 123)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C10	Beta-actin	AF021873	<pre>aagtattctgtgtggatcgaggctccatcctggcctcgctgtccaccc cagcagatgtggatcagcaagcaggagtagcagcgcgagtcggccccc ccatcgccatcgcaaatgcgttagatcgactgcgcgcgcgcgcgcgc catgtgtcatgagtgaattccgaagtataaaattggccctggcaaatgg ctagcctcatgaaaacttgaataagcgctttgaaaagaaaatttgttgc agctngtatctgtatatacagcancgtttagaacttgttgcgtatctg acnttgatccaagtaactgttccctggatgtttaataccgcctattcc aggattctctagaggctggcaagagactgtcaaccaggatgtcattctgttgc ccggtctaaccagggtggaaagggtccgagccttaggaccacttccgt cttacccaatgtttccctggccagaacaccgtgggtggtaattgcctgaa gtt</pre> <p><u>(SEQ ID NO: 124)</u></p>
C11	Tumor necrosis factor-alpha	S74068	<pre>caaattgcctccaactaatcagcccttgcgcacagactaaatcatct tctcgaaaccccaagtgacaagccagtagctcatgttagcaaaacccc gaagctgaggggcagctccagtgctgagccgcgcgtgcgcgcgcgc cctggccaaatgcgtggagactgcacagacaaccaggatgtatgtgcgc agatgggtgtacctcgatagctcccaaggcttcaaggccaaagggg tgcccttcacccatgtgtccctacccacaccatcagccgcgcgcgc ctcctaccagacaaaggtaacactactctgcgcacatcaagagccctgc caaaggagagccccagaggggaccgaggccaagccctggtaac gcccacatctacctggaggggtctccaactatctggacttgtccgagctggc aggctactttggatcatgtccctgt</pre> <p><u>(SEQ ID NO: 125)</u></p>
C12	Nitric oxide synthase-1, inducible	AF077821	<pre>gtccttgcattccatggacatggcacaggcatgcgcgcgcgcgc tctggcagcagccgcgcgcgcgcgcgcgcgcgcgcgcgcgc agccgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc ctgtatcgccggaggatgtggagatggcccaaggatgtgggtgc gagggtgcacacagccatttcgcgcgcgcgcgcgcgcgc ttcaagacatctgcgcgcgcgcgcgcgcgcgcgcgc tccatgaggagcaggccacccatgtgtggatgtgcgcgc cgggatgtggccatccctgaagcacatggcgcgcgc ctgagtgaaagagcaagttgaggactatccatgg agcgtatcatgaagatcttggatgtgttccatgg aagatggcagcaaaacagc <u>(SEQ ID NO: 126)</u></pre>
C13	BRCA1	U50709	<pre>tttctgggtattgcaggaggaaaatggtagtttagctattctggtaacc cagtcattaaagaaaagatactatgtatgtatgtatgt gaggatgtgtgaatggaaagaaaatcaccagggtccgaagcgac aagagaatcccaggacagagaatcccaagacagaaaatctcagg ggccttagaaatctgttgcgcgcgcgcgcgcgcgcgcgcgcgc</pre>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			attagagtggatggtgcacctctgtgggctctgtggtaaggagccctc gttattcacccctcagcaagggcactcatccagtggtagtcgtcgacccg gacgcctggacagaggacagtggctccatgcattgggcagatgtgt gaggcacctgtgtgacccgagagtgggtactggacagtgttagccctc taccagtgcaggagctggacacctacctgatccgcagatcccaga actgtgcagact <u>(SEQ ID NO: 127)</u>
C14	Metallothionein-IV	AB028041	ctgtgacacgcattggagcattttggacacctggacatggacccgggg aatgcacctcgatgtctggagaaatctgtgtggagacaattgaaaa tgtacaacactgcaactgtaaaacatgtcgaaaaagctgtccctgctg cccccccccgtgtgccaagtgtgcccagggtgcattgcattgcaggag gctcggacaagtgcagctgtgtgcctgaaccgcattccgtgtgtctgg gctggcggggcgggggtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt acagtgcattgtgagaaactgaaattattgtaccataggatgttttt tatatttgctcagagggtgggtgggtgacactcatgtaaaa <u>(SEQ ID NO: 128)</u>
C15	Tumor necrosis factor receptor	AF013955	ggctctgtttggaaataccataagcgtaactgcacttgttcac ccccggaaacagggtgaagagagacttctgtgtcccccaggaaaaat attcacccctaagacgcattccattgtgtacgtgcacaaaggga cctacctgtacaatgactgtccaggcccagggtggacacagactgca ggaaatgtgaaaacggaactttacagcttcagagaaccacccatcagac aatgtcttagtgcattccaaatgccaaaagaaatgaaaccagggtggaga tttccttgcattgttgcattccggacacagggtgtgtgtgtgtgtgt cagtagccgtttattggagtgaaaccctttccagtgcataactgcagc ctctgcctcaatggcacggtcagatctctgcattccatggaaagcagaac accatatgcacccacgcgggtttcttcaagagagcatgtatgc tctttgtgtgaactg <u>(SEQ ID NO: 129)</u>
C16	c-kit	AF099030	gagacttggctgttagaaatatcccttactcatggtgcataatcaca atttgatttgtctagccagagacatcaagaatgattcaattatgtgt caaaggaaaacgcgtcgctaccgtgtgtgtgtgtgtgtgtgtgt tttcaactgtgtacacattgtgtgtgtgtgtgtgtgtgtgtgtgt gtggggagcttctctttaggttttttttttttttttttttttttt attcaaaatgttacaagatgtatgtatgtatgtatgtatgtatgt tgagcatgcacccgtgttttttttttttttttttttttttttttt gt gatccctgaaaaggccgacgtccaaatgtgtgtgtgtgtgtgt gagaagcagatttcagatgtatgtatgtatgtatgtatgtatgt actgcaggcccaaccaggagcgtccccgtggaccattccgtgcgg atcaatt <u>(SEQ ID NO: 130)</u>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C17	CD40 ligand	AF086711	<p>ccaatttgaaggccttcaaggagataatgctaaacaacgaaatgaag aaagaagaaaacattgcataatgcggactacaccataagcagcaacctggtag ggcgtggccaaaagggtactacaccataagcagcaacctggtag cctcgagaatggaaacagtggccgtgaaaagacaaggacttatta cgcttatgcccaagtcacctctgcctcaatggcagctcgagtcaag ctccgttcgtcgccagccatgcctcattccccgagtggAACGGAGAG agtcttactccgcggcgagctccgcggctgtccaaacctcgcc caacagttcatccacttggaggagtattgaattgcattccagggtcttc ggtgttcgtcaacgtgactgtccaaagccaaatgtgagccacgggaccg gcttcacgtctttggcttactc</p> <p><u>(SEQ ID NO: 131)</u></p>
C18	Cubilin	AF137068	<p>tgaatgcacacatgactcttggaggtaagaaatggaaatgtatgcagt tcaccattttggccacatactgtggaaactctgttgcagatccatcttc cgaaaacaacaaactatacctacggtaagaccatgcgcactcc aatcgtgggtatggaaatgttgcacccatcaccctctggctgtgg accctttatggagacagtggttccctaccagccggctatccggc ttaccccaacaacactgactgtgaatggccatcatgcctctgtgg agacctgtcaccgtcaccttacttatcagcatcgatgtccggagac tgtgtccagaactatctcatactctacgtatggaccggatgctaattccat cccttggaccatactgtggggcagacaccaacatgctcccttggcc tcttcacatcgatgtccataaaattcacgcagatgtcagtgatccat ca</p> <p><u>(SEQ ID NO: 132)</u></p>
C19	Alkaline phosphatase	AF149417	<p>cagatgtggaggatgagatggacgagaagtccaggggcacgaggct ggatggcctgaacctcatcgacatctggaaacttcaaaccgagac acaaggactctactacgtctggacccgcacggaaactccctggccctcg accctacaccgtggactaccttgggtctttgagccggggacatg cagtagcagactgaacaggaacaacgtgactgaccgtactctccga gatggtgaaatagccatcaagatctgagcaagaaccccagaggctt cttctgtggggaggaggcaggattgaccacggcatcaggg caaggccaagcaggcgctgcacggggcgtggagatggaccgg aattgggaaaggcaggcgatgacccatgttgcgggtacaccc cgtagcgtggaccactccacgttccatgttggggatcaccgt cggggcaactctatcttgggtct</p> <p><u>(SEQ ID NO: 133)</u></p>
C20	Pancreatic lipase	M35302	<p>actcagagagcatcccaacctgtggattgttgccttaccctgtgt cctacaggcccttgaatctaacaatgtgtccctggccagatcaagg gtggccacagatgggtcaactatgtgtataaattgtgtcaagacaatgt atgagacacagaaatacttgcataacaccggagattccagacaatttg tcgtggagatacgggttctataacattgtgtggaaaagagccactg</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			gtcaggctaaagtgcgttggaaagtaagggaaatactcatcaattca atatcttcaaggggattctaaaccaggctacttccatgagtttg atgcaaagctgtatgttggacaattgagaatgtcaagttcttggaaa acaacgtgttaaacccaacccttccaaatgtgggtcagccaaatca ccgtcaaaaggagaggagaaaacagtgcacagctctg (SEQ ID NO: 134)
C21	Apolipoprotein CIII	M17178	agcccgtggaggaagaggaccctccctggccttatgcagggtta catgcacgcacccaccaagacggccaggacacgcgtaccgcgtt caggagtcccgagggtggcgcagccccagggctggatgaccata gcttcagttccctgaaagactactgcacgcgttaaggcaagttact gggtctggattcagccctgtaggccaaaccaactccagcctctg (SEQ ID NO: 135)
C22	Interleukin-4	AF054833	tcacctcccaactgttcaactctggctgttacttagcactcaccagca ccttgtccacggacataactcaatattactattaaagagatcatcaaaa tgttgaacatcctcacagcgagaaacgactcgtgcattggagctactgt caaggacgttccactgtccaaagaacacaacgcataaggaaatctt ctgcagagctgtactgtactgcggcagatctatacacacaactgcctcc aacagatatctcagaggacttacaggaacctcagcagcatggcaaa caagac (SEQ ID NO: 136)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	cgtgtcaactccaaatcgcatcaggccaaatgtcggtggaccgcga gaagtcaaccagaccgacttaaccggcggtatgagatcaagatgac caagatgttcaagggtttcagcgccttggaaatgcctcgacatccgc ttcgtcgacaccccccggccctggaaagcgtctgcggatactgcacagg cccagaaccgcagcgaggagttcgtgcggaaacctgcggac ggacactgcagatcaacacacgcgtttcgtggcccgatggagcgc ctgagttccgcagtttgcacatccatccatccatccatccatccatcc gtgagggggtgcacagtgttacccatccatccatccatccatccatcc atgtgacactcactgcgttgcggaccactcctcacaggctgtaca agggtttccagagccgcacccgtggcctgcctgccaagagagccagg atatgcac (SEQ ID NO: 137)
C24	Ubiquitin	AB032025	gcagattttgttaaagaccctgcacggccaaactatcaccctgaggtc gagcccagtgcacaccattgtaaaatgtcaaaaggccaaatccaagaca aggaggccatccgcctgaccagcagcgtctgtatgtcgccggcaac agctagaagatggccaaactctgcgtcagactacaatatccagaaagat ccacccgtcacttggcttcgcctgcggcatcattggcgttccatcc tccgcgcgtggcccaagaaatacaactgcgcacaagatgtcgccgc aagtgttatgcgcctgcaccccgatgtcaactgcgcacaagaaga

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			agt (SEQ ID NO: 138)
C25	Matrix metalloproteinase-2	AF095638	agcggtcagtgtgaaggagggtggactctggaatgacatctacggca accccatcaagcgattcagttatgagatacaagcagataaagatgttca aaggaccagacaaggacatagatgttatctacacggctccctcctccgc cgtatcgccccgtctccctggacatcgaggaaagaaggatgtatctatt gcggggaaaggcccaggggaaacggcaagatgcacatcaccccttg acttcattcgtgcctggaca (SEQ ID NO: 139)
C26	Interleukin-6	U12234	cctggtccagatgctaaagagcaaggtaaagaatcaggatgaagtga ccactcctgacccaaccacacagacgcgcgcgcgcgcgcgcgcgc cgcaggatgatgtcgatgtcgatgtcgatgtcgatgtcgatgtcgat gtcgatgtcgatgtcgatgtcgatgtcgatgtcgatgtcgatgtcgat ctggcatctaagatgtcgatgtcgatgtcgatgtcgatgtcgatgtcgat acctgtgcagtgggcacaaaacttatgttgtctgtgaggaactaaaa gtatgagcgatgttgcactatttatattttatattttatattttatattttat tgatatggatgttataatataatgtatgtatgtatgtatgtatgtatgtat acttggaaatttatgtattcatgttgcacaaaatgttgcacaaaatgtatgc ggctgtatcatctcgatgttgcggagccagg (SEQ ID NO: 140)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	tggaaatttgaacccaaacaaaggcagagtacacagacactttatgtta tgttgcggcccgaggatacaaccgtcggtcgacccctccatctgtgg aggaaggtagtcgtgtgaacatgacccgtctcgatgcgtggccctccagc tccgaacatccgtggagcaggcggctaaatgtggccgtcgatgc tcttctgaggatccaattctcaccttaactctgcaaaaatggaaagattct ggtatttatgtgtgtgaaggatgttgcacccaggctggatataaggc aagtagaaatattatccaatgttgcacccaggctggatataaggc ttccctctgagatgttgcacccaggctggatataaggc gtggaaatgttccaaaaacttggataatctgcagaaaaaaaggc acggggagacacatgtctaaatgtccacccaggatgttgcacccatcca caagggtccaggatgttgc (SEQ ID NO: 141)
C28	Phenol sulfotransferase	D29807	gctccccccagaccgtgttggatcagaaggcaggtcaagggttctacgtcgcc cgcaacgcacccaaatgttagtgcgttctcttaccacttaccgcgtgg caagggtgcacccgtaccctgacacccgtggacagcttccctggagaagg catggctggggaaatgttccatgggttccatgttgc ggtggggagatgttgcacactaccctgttctaccttctatgaggaca tggaaagagaaccccaaaggagatgttgc ggcgtccctgccaggagactgttgc (SEQ ID NO: 142)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

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TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C32	HSP27	U19368	ggacccttcgcgactggtacccggcccacagccgccttcgacca ggcctcggtctccccggctgccggaggagtggcgcagtggttcgg ccacagcggtctggccgggtacgtgcgcggatccccccgcggcgc agggccccccgcgcccggccgcggccgcgcgcggccctacaggc gcgcgtcagccggcagctcagcagcggcgttcggagatccggca gacggccgaccgctggcgcgttcctggacgtcaaccacttcgccc cgaggagctgacggtaagacgaaggacggcgtggagataact gcaagcacgaagagaggcaggatgagcatggctacatcccccc gcctcaactccaaatacaccctgcgggtggatcctaccctggc tcctcctccctgtccctgagggcacttcacggtgaggctccatgc caagccagccaccaggcggcagaatca (SEQ ID NO: 146)
C33	IL-10	U33843	cgggtccctgtggaggacttaagagttacctgggtgccaagccctgt cgagatgtccaggattttactggaggaggatggccgggtggatgg ccacgaccacatcaagaaccacgtgaactccctggagagaag ctcaagaccctcaggctcggactggatggcgtgcacgcgtcaccgatttc ttccctgtggatataagagaacggcgggtggagcaggtaagagcgc atttagtaactccaggagaaagggtgtctacaagccatgagtgagg gacatctcatcaactacatagaacaaacctacatgacaatgaggatgaaa atctgaaacgtgtggagaacaaaacacccaggatggcaactcttc gactctaggacatgaaattggagatctgcaaaataccatcccggatgt ggagagccgaccaactgctggagaaccccgatccatacc (SEQ ID NO: 147)
C34	caveolin-1	U47060	tccgaggggcacctctacaccgtcccatccggaggcaggcaacat ctacaagcccaacaacaaggccatggcggaggagatggcggagaaa gcagggtgtacgcgcacaccaaggaaatgcacccgttcaaccgc gaccccaagcatctcaacgcacgcgtggtcaagattgtttgaagatg tgattgcagaaccagaaggaacacacagtttgcattttgcacatcgaaagg ccagcttcaccacccatctactgtgacaaaactgtttaccgcgtgc tgcccttggcatccaaatggcactcatatgggcattacttgcatttc tttcttcctgcacatctggcgtgttgcgtgcattaagatgttctgtt agattcagtgcacatcggcgtgttgcatttcacatctacgtccacacc ccgttcttgaggcgtgtggcaaa (SEQ ID NO: 148)
C35	H-ras, p21	U62092	accatccagactcatccagaaccacttcgtggatgagtgacgaccc atcgaggactctatcgaaagcaagtggcattgcacggggagacgtgc ctgctggacatccgtggacacagcggggcaggaggatcagcgc gcgggaccagtacatgcgcacggggagggtttctgtgttgc a (SEQ ID NO: 149)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C36	rab2	M35521	<p>agacaagaggttcagccagtgcacactcggttagagttt gtgctcgaatgataactattgtatggaaacagataaaaactcagatag ggatacggcaggcaagagtccttcgtccatcacaaggcatattac agaggtgcagcaggggcttacttagtgtatgatattacaaggagagata cattcaaccacttgcacaacctggtagaaagatgcccgcacatccaa ttccaacatggcattatgtatggaaataaaagtgattagaatcaag aagagaagtaaaaaaagaagaaggtaagctttgcacgagaacat ggacttatctcatggaaacttctgctaagactgcctccaatgtagaagag gcatttataatacagcaaaagaaattatgagaaaatccaagaagga gtcttgacattaataatgaggcaacggcattaaaatggccctcagca cgctgctactaatgccacacac</p> <p>(SEQ ID NO: 150)</p>
C37	rab5	M35520	<p>aaggcttagtgctcgttgtgaagggccaattcatgaattcaagagag taccatagggcgcttctaaaccaaactgtgtgtatgatacaac agtaaaggtaatatggatcacagctggcaagaacgataccatag cttagcaccaatgtactacagaggagcacaaggcagccatagtttat gatatcacaatgaggagtcttgcagagccaaaaactgggtaaa gaacctcagaggcaagccagtcataacattgtatagctttcaggaa acaaggctgatctgcaaataaaagagctgtcgattccaggaagcac agtcctatgcagatgacaacagtattatcatggagacatcagctaa acatcgatgaacgtaaatgaaatattcatggcaatagctaaaaagtgc caaagaacgaaccacagaatccaggagcaaattctgccagaggaa gaggagttagacattactgaacccacgcagccaa</p> <p>(SEQ ID NO: 151)</p>
C38	rab7	M35522	<p>ccccaaacacattcaaaacccctcgatagctggagagatgagttctcatc caggcccgatccccggatcctgaaaactcccttcgtgtggaaa caagattgacctcgaaaacagacaagtggccacaaggcgggca ggcctggctcacagaaaaacaacattccctacttcgagaccagtgc caaggaggccatcaatgtggagcaggcgtccagacgatggcaagga atgcacttaaacaggaaacagagggtggagctgtacaatgaattccctg aacccatcaaactggacaagaacgaccgggcaagacccatcgcc aaagctgcaggctgtaagggcagtggagacgacagactcct tcacaaacaaaacacttaggcctcaacacgagcccccttc tctccaaacaaaacataaagtcatctcgaatccagctgcca ccctacccaaacacttcaccctgacacacaca</p> <p>(SEQ ID NO: 152)</p>
C39	APO CII	M17177	<p>ctggttctgtgtccctggatggattggaggccaggggccc atgagtcccagcaagatgaaaccaccagctccgcctgctcacccag atgcaggaaatcactctacagttaactggggcagccagatggctgccc gaggacactgtacaagaaggcataccaaactaccatggatgagaaaat cagggacatatacagcaaaagcacagcagctgtgagcacttcgc</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			gggattttcactgacc <u>(SEQ ID NO: 153)</u>
C40	endothelin-2	X57038	ctgtccgcctctgtccccctgtgcgcacgcaggcaagggccagggtggc cgctgcccggagcatccagcacccctcagccggcccgaggctccc acctgcggcctcgccgttgcctctcgacgtccctggctgacaaggagtg cgtctacttctgcacacctggacatcatctgggtgaacactccgggttag ctcccgccccggacccaggcgggctgttagaggcggggcaggggg tggggaacctgttagctagcacagctctccctggcctccagacggatc gctgagctgacatgaagagcggctgggttgttgcctactcc <u>(SEQ ID NO: 154)</u>
C41	FGFR2	AF211257	tgattgttcttcgcacaaaaatgccagtagtaaacaacccatcgata ggaaaagtattttgtttgtgtgcagctctgtcattggccatggagcgcg gaactggacttccaagacaaaatgttaccagcgttctctaaaaagatg ccttaatccatccctcgagggtggaccttagttgagatgatagcagactgt actccctccggcagctggccctctgcctcgttgcacgttaatcagatt agcctgtattcttcgttgatttgataatggctccagattcatggcgtt agggaaagccttttagaatcttcacgtgtcatcgtcggaaattgaaacactg agttgttctgtatgggtttggagatactccatcttttaagggttgctctg tctaattctggcaggacccatccaaaaagatcggcctcgatccaacgtc agacacgtgtccgttgtgtcggttgcatttt <u>(SEQ ID NO: 155)</u>
C42	leptin	AB020986	gccttaccctcaggcacccatggcattccagatggtaaaaatgccacacac cagtagcaaaggctggcctcgccatggcaactgagcagactgaac cagcgcactcctcagcaggcggaaatgtcaactgagaatgtcagtg ctcaggggcccacaggctaacccctgtccacttcgttagattttgttt cagggcaggcaggcatttattactgttagccacatccctgtaaaggcag cagcatagctgacaattaaaaataagaactaagaacataactaagac cataacggcagacaagttagcaggccgagactagatgtcaggac ctgactcccaagactgttccggagccaggtaatgtccctggagggtgc aaataggggtggcaggggagaccagaatgttacaggagagag gactggagggtgatggcaggaggatgtgaattgcctgaatgg cggaggctgtttgttgcatt <u>(SEQ ID NO: 156)</u>
C43	prostaglandin D synthase	AB026988	agggtccccctgcagcccaacttcaacaggataagttccctgggcgtg gttcacccctggggcctcgccctccaaactcgagctgtttccgggagaagaa gaacgtgtccatgttatgtcagtgtggcccccggccacgcacaggg aggccctcaacccctcacccacccctccatccaggaaagaccaggatgtgagac tcgaaccctgtccctacggccggcggaaaccggggctgtacagct cacgagtccccactggggcagtaccacgcacgtgtgggttagcca <u>(SEQ ID NO: 157)</u>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ccaaactacgaggagtacgcgttctcacaccgcaggcagcaaaggc ctcgccaggactccacatggccactctacagccgcacccagacc ccaaaggccgagataaaggagaaaattcagcaccttgccaagaccc agggcgttcacagaggatgccattgtcttcgtccacagactgataaatg catggaggagaacaagttagtgaccgccc (SEQ ID NO: 157)
C44	paraoxonase2 (PON2)	L48515	caggactccacagctttccccagataaggcctggagggatattaatgat ggatctaaaaaggaaaacccgagggactggaattaagaatcagc cgtgggtcaattggctcgltcaatccacatggtatcgcacccatcg acagcgcacacagttatcttctgttaaaccatccagaattcaag aatacagtggaaattttaaatttgaagaagaagaaaattcttctgcat ctaaaaacaatcaaacatgaacttcccaagtgtgaatgatcatagc tgtggaccagcacattctatgccaccaatgaccactattctgtatcc tcttaaagtatttggaaacatactgaacttacactggcaatgttgtta ctacagtccagatgaagttaaaggtagcagaagggttgatgcgc aatggatcaatattcacc (SEQ ID NO: 158)
C45	beta-glucuronidase	AF019759	cgcgtatgtggacgtcatctgtcaacagttactactctggtatcagc actatggcacaatggagggtattcagctgcagctggccaccgagttga gaactggataggacctaccagaaaccaataatccagagcgagttc ggcagagacaattgcaggctccaccaggatccacctctgtatggat tgaggagttaccagaaaggctgtcgagcagttacttggctgttgat cagaaacgc当地atgtgtttggagagctcatggaaatttgc atttatgactgaccagtaccacagagagcgttggaaacagaaag ggcatcttcactcgccagagacaacccaaagcggccgccttcatttgc gagagaggtactggaaactgccaatgaaaccgggcaccacccggc cgcggccaagtccagtgtttggaaaacagccgtcgccctctgaag cctctgtct (SEQ ID NO: 159)
C46	caveolin-2	AF039223	ctccagggtggctcgaggacgtatgcggacgcgggttctacgcact ccttgacaaagtgtggatttgcagccatgcctgttgggttgc acgtatcataagttctgcgttgcgtccggatgcctatggccatggcc cgccagggttctcgccaccctcagctgcgtgcacatctggattata atgccttcgtgaagacactgcctcatggctctgcctcggtcagaccata tggaaaggatgtaaacagatgttgcattggccctgtgtcaagtgtagg acgcagcttcctctgtcagctgcaagtgttgcactgcactgaggacttgg acccca (SEQ ID NO: 160)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			aa <u>(SEQ ID NO: 164)</u>
C51	decorin	U83141	gatgaaaatggagccitccagggaatgaagaagctctcttatatccgcattgctgataccaatataactaccatccctcaagggttcctccctcccttac tgaattacatcttgaaggcaacaaaatccaagggtatgcatctagcctgaaaggactgaataatttgctaagtgggactgagtttaacagcatctccgttgtacaatggcactctagccaacactctcatctgagggagcttcacttggacaacaataagctcatcagagttaccgggtggctggcg gacataagtacatccagggtgttacccatcataacaacaatatactcagtcggatctaattgacttgcacccatggataacaacacaaaaaggcttcttattcagggtgtgacccatccatcagcaacccatgtcagttactggagatccagccatccacatccgggtgttacgtgcgtctgcacatccagcttggaaattat <u>(SEQ ID NO: 165)</u>
C52	glucose-6-phosphatase	U91844	ctggggatctcagctgcaggattttcacctgtcccatccatcaagaaaaaggaaaggagcagttgcatttgcataatggatagaagaagaatggattaaggaaagacttctcgatccatcatcatcaaaattcatgttacacaaaaatctaatcgcttgcattatatttgcatttttagttaaggaaactctcaatagtgggggaccaactaaagcataactataggtagttatggggtaattctgcattctatgtttctactatgttacgtgacccatgttgcgttgcagggcattcagatatgtcagcttctatcacactacatccctccatgtcagcctagctcagcttccatgaaacttccactgtctacatctgtgcgtacacagagatgcctaaaggcagcttagggtagtgctttgtatggtttagtcaagctgcattatctggcaaaaagggtgaggagaggcaaggagaggaaaggat <u>(SEQ ID NO: 166)</u>
C53	TGFB1	L34956	gacccttcgtctccatggccacccactggagagggccagcaccgtcacagctccggcagcgccggccctggacaccaactactgtctca gctccacggagaagaactgtcgctccggcagctctacattgtacttccgcaaggatctggcttgcattggatccatgagccaaagggttaccacgcttaacttcgcctggggccctgcctacattggagccatggacacgcgtacagcaagggtcctggccctgtacaaccagcacaacccggggcgctcgccggcgccgtgtcgccgcaggcgctggagccactgcccacatgttactacgtggcccaagcccaagggtggagcagctgtcgaacatgtcgtgcgtccatgcattgtcagtgacccatgttgcaggccccccccgtccggcaggcccccacccggcaggncggccccccccgtccggcggctgtattha <u>(SEQ ID NO: 167)</u>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C54	ZAP36/annexin IV	D38223	<p>gacacgtccttcatgttccagagggtctgggtcgctgtcgccggtg caggatgaaggaaatttcggacatgcctcatgagacaggatgc caggacatgtatgaggctggagagaagaataatgggaacagatgagg taaaaatttcgactgttctgtcccgaaaccgaaatcacctgttgcatt gtttgcattacaaaaaggatatcacaaggatattgagcagggtatt aaatctgaaacatccggtagttgaagatgcctgtggccatagtaaa gtgcattgcattgcacaaatctgcatactttgcattaaaggcttataatctat gaagggttggaaacagatgataacaccctcatcagggttatgggtct cgagcggagatcgatgtatggacatccggagagctcaagaggctt tacggaaagtctctgtactcctcatcaagggtgacacatctgg</p> <p>(SEQ ID NO: 168)</p>
C55	N-ras	U62093	<p>gttggagcagggtgttggaaaagcgactgacaatccagctaattc cagaaccacttttgcattatgcattccaccatagaggatttttaccg aaaacaggtgttatacgttgcatttttttttttttttttttttttttt acagctgtcaagaagagtacatgtccatgagagaccaatacatgag gacaggcgaaggcttccctgtgtatttgc</p> <p>(SEQ ID NO: 169)</p>
C56	K-ras	U62094	<p>gtatgttggagctgggtggctaggcaagagtgcctgacgatacagta attcagaatcactttgttgcattatgcatttttttttttttttttttt agggaaacaagttagtaattgttgcatttttttttttttttttttttt cacagcaggtaagaggatgttgcatttttttttttttttttttttttt aggacttggggagggttttttttttttttttttttttttttttttttt (SEQ ID NO: 170)</p>
C57	p38 MAPK	AF003597	<p>ctggtgaccatcttggggcagatctgaacaacattgttgcatttttt gaagcttacggatgaccatgttgcatttttttttttttttttttttt ttt gcaatctgttgcatttttttttttttttttttttttttttttttttt actggcccgacatacagatgttgcatttttttttttttttttttttt gtggtacagggttttttttttttttttttttttttttttttttttttt acagttgttgcatttttttttttttttttttttttttttttttttttt aagaacgttgcatttttttttttttttttttttttttttttttttttt agactcggttgcatttttttttttttttttttttttttttttttttt agtctgcaagaaactacattcgttttttttttttttttttttttttt (SEQ ID NO: 171)</p>

Please substitute TABLE 3 50-mer target sequence for canine arrays with TABLE 3 50-mer target sequence for canine arrays amended as follows:

TABLE 3 50-mer target sequence for canine arrays

ID#	Gene Name	GenBank Accession Number	50-mer sequence
C58	Cytochrome P450 2D	D17397	ccggctccatcgaggggcccgggtacaat aaaccagtttgtggctcc <u>(SEQ ID NO:172)</u>
C59	Cytochrome P450 2B	M92447	aactcaaataaacatcaaaaggcctgacatcc cctggtcagggtggtgagcc <u>(SEQ ID NO:173)</u>
C60	Cytochrome P450 2C41	AF016248	ccagtgaacatccaacctccattaaaggaaa gtctccagaattcttgc <u>(SEQ ID NO:174)</u>
C61	Cytochrome P450 2C21	AF049909	tatctctgcctctctgtgtgtgtctcatgaa taaataaaatctt <u>(SEQ ID NO: 175)</u>
C62	Cytochrome P450 3A	X54915	gtgacacagaatgagaaactctaactctggg aatgtacaagggatagt <u>(SEQ ID NO: 176)</u>

Please substitute Table 6 with Table 6 amended as follows:

Table 6

ID #	Gene Name	Left PCR primer sequence	Right PCR primer sequence	Target Sequence on canine array
C64	Gadd45	AACTGA ACCAAA TTGCACT GAA <u>(SEQ ID NO: 177)</u>	CCATG TAGCG ACTTT CCCG <u>(SEQ ID NO: 178)</u>	CGCGTCTAGAAACTGAACCAAATTGCACTGAA GTTTGAAATACCTTGTAGTTACTCAAGCAGT TACTCCCCACACTGATGCAAGGATTACAGAAA CTGATGTCAAGGGGCTGAGTGAGTTCAACTAC AGATTCCGGGGCCGGAGCTAGATGACTTTG CAGATGGAAAGAGGTGAAAATGAAGAAGGAA GCTATGTTGAAACAATACAAGTCAGGAAAG CAAAAATTACAAAGAACCATGCAGGAAGAAG CTTGGCC <u>(SEQ ID NO: 179)</u>

C65	Super- oxide dismu-tase Mn	AACAA CTGAAC GTCACC GA <u>(SEQ ID NO: 180)</u>	TCTCC CAGTT GATTA CATTC CAAA <u>(SEQ ID NO: 181)</u>	GCGCGAATTCAACAACCTGAACGTACCGAGG AGAAGTATCTGGAGGCCTGGAGAAGGGTGAC ATTACAGCTCAGATACTCTTCAGCCTGGCTC AAGTTCAATGGAGGAGGTATATCAATCATTC CATCTTCTGGACAAACCTGAGCCCTAAGGGTG GTGGAGAACCAAAAGGGGAATTGCTGGAAGC CATCAAACGTGATTTGGTCCCTCGACAAATT TAAGGAGAAGTTGACCACTATATCCGTCGGTG TCCAAGGCTCAGGTTGGGGTTGGCTGGTTCA ATAAGGAGCAGGGACGCTGCAGATTGCTGCT TGTTTAACCAGGATCCCCTGCAAGGAACAAAC AGGTCTTATTCCACTACTGGGATCGATGTGTG GGAGCATGCTTATTACCTTCAGTATAAAATGT CAGACCGGATTATCTAAAAGCTATTGGAATG TAATCAACTGGGAGAAAGCTTGGCC <u>(SEQ ID NO:182)</u>
C66	UV Excision repair protein RAD23 (XP-C)	GAAAGT CAGGCT GTGGTTG A <u>(SEQ ID NO: 183)</u>	TGGCA GCCAA ATTCT CATTC <u>(SEQ ID NO: 184)</u>	CGCGGGATCCGAAAGTCAGGCTGTGGTTGACA CCCCTCCCGCAGTCAGCACTGGGCTCCTCCAT CTTCGGTGGCAGCTGCTGCAGCAACTACAACA GCGTCAACAACACAGCGAGTCCTGGAGGACA TCCCCTGAATTITACGGAATCAGCCTCAATT TCAACAGATGAGACAAATTATTCAACAGAAC CTTCCCTGCTCCAGCATTGCTACAACAGATAG GTCGAGAAAATCCTCAATTACTGCAGCAAATT AGCCAGCACCAGGAGCATTTATTAGATGTT AAATGAACCAGTTCAAGAAGCTGGTGGTCAAG GAGGAGGGGGTGGAGGTGGCAGTGGAGGAAT TGCAGAAGCCGGAAGTGGTCATATGAACATACA TTCAAGTAACACCTCAGGAAAAAGAAGCTATA GAAAGGTTAAAGGCACTAGGATTCCTGAAGG ACTTGTGATACAACCGTATATTGCTGTGAGA AGAATGAGAATTGGCTGCCAAAGCTTGGCC <u>(SEQ ID NO: 185)</u>
C67	Proliferati ng cell nuclear antigen gene	GATAAC GCGGAT ACCTTGG C <u>(SEQ ID NO: 186)</u>	AGTGT CCCAT ATCCG CAATT TT <u>(SEQ ID NO: 187)</u>	GCGCGGATCCGATAACGCGGATACCTTGGCGC TGGTATTGAAAGCACCAAGAACAGGAGTACAG CTGTGTAGTAAAGATGCCTCTGGTGAATTGC ACGTATATGCCGAGATCTCAGCCATATTGGAG ATGCTGTTGTAATTCTGTGCAAAAGACGGA GTGAAATTCTCGAGTGGAGAACCTGGAAA TGGAAACATTAATTGTCACGGACAAGTAATG TCGATAAAAGAGGAGGAAGCTGTTACCATAGAG ATGAATGAACCAAGTTCAACTAACTTTGCACTG AGGTACCTGAACCTTACAAAAGCCACTCC ACTCTCTCAACGGTGACACTCAGTATGTCTGC AGATGTACCCCTGTTAGAGTATAAAATTGC GGATATGGGACACTAAGCTTGGCC <u>(SEQ ID NO: 188)</u>

C68	Glucose-regulated protein 94	CTGTGGT GTCTCTG CGCCT <u>(SEQ ID NO: 189)</u>	TTTCA GCTGT AGATT CCTTT GCTG <u>(SEQ ID NO: 190)</u>	CGCGGGATCCCTGTGGTGTCTAGCGCCTGAC AGAGTCTCCGTGTGCTCTGGTGGCCAGCCAGT ATGGATGGTCTGGCAACATGGAGAGAATCATG AAAGCTCAAGCATACCAGACGGGCAAAGACAT CTCTACAAATTACTATGCCAGCCAAAAGAAAA CATTGAAATTAAATCCCAGACATCCCCTGATCA AAGACATGCTTCGACGAGTTAAGGAAGATGAG GATGACAAAACGGTATCGGATCTGCTGTGGT TTTGTGAGACAGCAACGCTGAGATCAGGCT ATCTGCTACCAGACACTAAAGCATATGGAGAT CGAATAGAAGAATGCTTCGCTCAGTTAAA CATTGACCCCTGATGCAAAGGTGGAAGAAGAAC CAGAAGAAGAACCGAAGAGACAACCGAGGA CACACAGAAGACACAGAGCAGGACATGAA GAAGAAATGGATGCAGGAACAGACGACGAAG AACAAAGAAACAGCAAAGGAATCTACAGCTGA AAAAGCTTGGCC <u>(SEQ ID NO: 191)</u>
C69	Glutathione S-transferase alpha subunit	CAGAGA AGCCA AGCTCC AC <u>(SEQ ID NO: 192)</u>	ACCAG ATGAA TGTCA GCCCG <u>(SEQ ID NO: 193)</u>	CGCGGGATCCCAGAGAAGCCCAAGCTCCACTA CTTCAATGGACGAGGCAGAATGGAGTCCATCC GGTGGCTCCTGGCTTCAGCTGGAGTAGAGTT GAAGAGAAAATTATAAATGCTCCAGAAGACTT GGATAAATTAAAAATGATGGAAGTCTGATGT TCCAGCAAGTGCCAATGGTGGAAATTGATGGA ATGAAGCTGGTACAGACCAGAGCCATTCTCAA CTACATTGCCACCAAATACAACCTCTATGGGA AAGACATAAAGGAGAGAGCTCTGATAGATATG TACACAGAAGGTATAGTAGATTGAATGAAAT GATCATGGTTTGCCCTATGCCACCTGATCA AAAAGATGCCAAGATTACTCTGATCAGAGAGA GAACAACAGATCGTTATCTCCCCGTGTTGAA AAAGTGTAAAGAGCCATGGACAAGACTACCT TGTGGCAACAAGCTGAGCCGGGCTGACATTC ATCTGGTCTCGAGGGCC <u>(SEQ ID NO: 194)</u>
C70	BR-cadherin	GTCCGTG GCAGAG TCCCTCA GCTCTAT <u>(SEQ ID NO: 192)</u>	CACCG TGATG CCACA TAGCT ATCTT CG <u>(SEQ ID NO: 196)</u>	GTCCGTGGCAGAGTCCCTCAGCTCTATAGACTC TCTCACACAGAGGCTGACCAGGACTACGACT ATCTGACAGACTGGAACCCCGCTTAAAGTC TTGGCAGACATGTTGGGAAAGAAGAGAGTTA TAACCCTGATAAAGTCACTTAGGGCAGAAGCC AAGGATAAAACACAACAAAAGGAGAAATT AAAAGAAACACAAATAGAAATCTCTCTC ACACACACACATGCATACATGCACGTGCAC ACACAGACACAGACACACACACCAGGCTT GTAGGACACAATCATTTGATGATCTGGTTCTA GCAAGTTGCTGTAGTTATCATATTGTCAAGTT TGTGTTACTCTGCCAACACAAGATAAACTCTAT TACATGTACTTGCTGGTTTGTGTTCTT GGATACACACTGAGACAAAGCTCAGGCCTATTA AATACAATTACTGACATGACAACATAGAACG AAGATAGCTATTGGCATCACGGTG <u>(SEQ ID NO: 197)</u>

C71	N-cadherin	GGAGCC TGATGCC ATCAAG CCTG <u>(SEQ ID NO: 198)</u>	GGTTT GCAGC CTATG CCAAA GCC <u>(SEQ ID NO: 199)</u>	GGAGCCTGATGCCATCAAGCCTGTAGGAATCC GACGATTGGATGAGAGACCCATCCACGCCGAA CCCCAGTACCCGGNCCGA TCTGCAGCCCCGCA CCCTGGGGACATCGGGGACTTCATTAATGAGG GCCTTAAAGCTGCTGACAATGATCCCACAGCT CCACCATATGACTCCCTCTTAGTCTTGACTAC GAAGGCAGTGGCTCTACCGCTGGGTCTTGAG CTCCCTTAATTCTCAAGTAGTGGTGGCGAGCA GGAATGACTACCTGAACGACTGGGGCAC GGTCAAGAAACTTGCTGACATGTATGGTGA GGTGTGACTGAACCTCAGGGTGAACCTGGTC TTTGGACAAGTACAAACAATTCAACTGATAT TCCCAAAAAGCATTCAAGACTAGGCTTAAC TTTGTAGTCACTAGCACAGTGTGCTGGAGG CTTGGCATAGGCTGAAACC <u>(SEQ ID NO: 200)</u>
C72	Mek5	TCATGG ATGGGG GATCTTT GGATG <u>(SEQ ID NO: 201)</u>	GGGTG GCCCA TCAAT TCTTC AGGT <u>(SEQ ID NO: 202)</u>	GGGTGGCCCATCAATTCTCAGGTGCTGGCTT TCTTCGGTTGTTTCGCATGCAGTGAGTGATG AAATGTACAATGGCTGGAGAACTCTCAAAC CGGAAGGACGGGCGAATCCTCATCAACAAATGC ACTGCAGAAGCTGGAGAGGGCTCCATGAAAGAG ATTCCTAAACTCCGGACATCAGAATGGATTCC ATACTGCTCCCTGAAATTCTTCAGGCGCCAT ATAAGCATTGTCCAACATACGTCTGGCTAT AGAATTCAACCAGCTGAGTGCTAACTCCAAAAT CGCACAGCTTGACCTGTCCTCTGTGTTACTA GCGTATTGGAGGGCTTCACATCTCTATGTAAA ATCTTAAACTCCACAAGTAGGTAAAGGCCTTA ACAAC TGCTATTGCAATTCTCCAAGGACATGC TCTGGAATTCTATACATCCAAAGATCCC CCATCCATGA <u>(SEQ ID NO: 203)</u>
C73	Glucose transporter	GCAGCA GCCTGTG TATGCCA CC <u>(SEQ ID NO: 204)</u>	AAGCC GGAA GCGAT CTCAT CGAA <u>(SEQ ID NO: 205)</u>	AAGCCGGAAGCGATCTCATCGAAGGTCCGGCC TTTGGTCTCAGGAACCTTGAGTAGGTGAAGA TGAAGAACAGAACCGAGGAGCACGGTGAAGAT GATGAAGACGTACGGACCACACAGTTGCTCTA CATACTGGAAGCACATGCCACAAATGAAATT GAGGTCCAGTTGGAGAACGCCAGCAACAGCAAT GGCAGCTGGCGAGGACCCCTGGCTGAGGAGTT CAGCCACAATGAACCATTGGATGGGCCAGGG CCCACTCAAAGAACGCCACAAAGCCAAAGAT GGCCACGATGCTGAGATAACGACATCCAGGGCA GTTGTTCCAGCAGCGCCAGCGCATGGTCATG AGCACGGCACAGCCGCCATGCCAGCCAGGCC TATGAGGTGCAGGGTCCGCCGGCGCGCTT CCACCACGAACAGCGACACCACGGTGAAGGCC GTGTCACGATGCCGGAGGCCATGGTGGCATA CACAGGCTGCTGC <u>(SEQ ID NO: 206)</u>
C74	SHB (Src homology 2 protein)	CGCCGA TGAGTA CGACCA GCCTT	GCTCA GCCCC TTTGA TGGGT AGC	CGCCGATGAGTACGACCAGCCTTGGGAGTGGA ACCGGGTCACCATCCAGCTGGCAGCCCAG TTAATGGCAACGAGAACGGCAATCATCCCC CTCTCCTTCCGGGACCGGGCGGCCAGCTCG AGCTCCTGGAGGGGCTCAAGCCCATTAAAGC

		<u>(SEQ ID NO: 207)</u>	<u>(SEQ ID NO: 208)</u>	ATGGGAGCCCTGAGTTCTGTGGGATCTTGGGA GAAAGAGTGGATCCTGCTGTCCCCTGGAAAA GCAAATCTGGTATCACGGAGCCATCAGCAGAG GAGATGCTGAGAACCTCTGCAGGCTCTGCAAG GAGTGCAGCTACCTTGTCCGGAACAGCCAGAC AAGCAAGCACGACTATTCCCTCTTTGAAGA GCAACCAGGGCTTATGCACATGAAACTGGCC AAAACCAAAGAGAAGTATGTTCTGGGTAGAA CAGCCCCCGTTGACAGTGTCCCAGAACGTC TCCACTACTATACCACCAAGAAAGCTACCCATC AAAGGGGCTGAGC <u>(SEQ ID NO: 209)</u>
C75	Ear-3 (v- erbA related) or Apolipoprotein AI regulatory protein (ARP-1)	TGCAGA TCACCG ACCAGG TGTCC <u>(SEQ ID NO: 210)</u>	CATAT CGCGG ATGAG AGTTT CGATG G <u>(SEQ ID NO: 211)</u>	TGCAGATCACCCGACCAGGTGTCCCTGCTTCGC CTCACCTGGAGCGAGCTGTTGTGCTGAATGC AGCACAGTGCTCCATGCCCTCACGTCGCC CGCTCCTGGCCGCCGCAGGCCTACACGCC CCCATGTCCGCCGACCGAGTGGTCGCCTTATG GACCACATACGGATCTTCCAAGAGCAAGTGG GAAGCTCAAAGCGCTGCACGTCGACTCCGCC AGTACAGCTGTCATAAGGCCATAGTCCTGTTCA CCTCAGATGCCTGTGGTCTCTGATGTAGCCC ATGTGGAAAGCTGCAAGAAAAGTCCCAGTGT GCTTGGAAGAACGTTAGGAGCCAGTACCC CAACCAACCAACACGATTGGAAAGCTTTAC TTCGCCTCCCTTCCCTCCGCACGGTCTCCTCCT CAGTCATAGAGCAATTGTTTCTGTCCTGTTGG TAGGTAAAACCCCCATCGAAACTCTCATCCGC GATATG <u>(SEQ ID NO: 212)</u>

Please substitute **Table 7** with **Table 7** amended as follows:

Table 7

Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GAUTGAGACCATTATTCNAG ACACGCAGCTGACCAAGGAGT GAGGGAGGGACCAGGTGTG AAGCTAATAAAATAGAGGAGGG GGAGACTCCTGGAGCTGTAG CCATTCACTCTTCATTCTCTC AGGCATGAAGGCATCTCTTT CTGACCAAAGCTT (SEQ ID NO: 213)
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATAT TAGTTTGCATTTAGTGACAG GTGTAAGAGAAAGGCCCTTC TTCCCTTACTGGGACAAATCT AGAAATCTTACACAGATGTGC AAATAAGCTCGCGTGGTGTT C (SEQ ID NO: 214)
CTP3B	Homo Sapien N-myc downstream regulated (NDRG1)	BC003175	GCAAAGTTACAAATTATTGGT CTGGAAATAAACAAATATCT GATTAAGAAAATTCTCTGGAA AGACTTGTACACAACAGTTTC CTGTCCTGATTAGCCACTCC TGCCCTGACCAAAGCTT (SEQ ID NO: 215)
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACC CACGAAGTTGTTTAAGGTTA CAGCTATGAATAAACATTGTC CAAACAAATGAAGATTAGGGC TGAAGAACGAGCGTATGTCTA CAGTCGAAGCTT (SEQ ID NO: 216)
CTP7B	No significant match		CAGGTGCAAGAGGTTGTTG GGAGGTAATCCTAGAAACCAC AGAAGGGGGTGGGGATAGGA GGGATGGCAGGAAAACCACT AAGAACTGTGTTATTGAGAAG GTTATCACTGTGGACAACCTGG CACAGAATACACCTCAGAGCT GTCGCCCTGAGGGACAATGA CGCCAAGGTCTTTCTCTAA GTCCTGTTCTTATAGGCCGA GGGTGGCTCTGGAGCAGT AACTGCCAACAGTCGAAGCTT (SEQ ID NO: 217)

CTP8A	No significant match		AAGCTTGATTGCCCATACCTG AGCCATTGATATATTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTGAAAAGCTTCAG CCTTCAACAGAAGATAACTCT TCTTGTTTGAGATTGAGCA GATAATTCTTTGAAGGTGAT AGTTTCTAAATTGGATAAAAC CGTGGCTGCCATTATATTCAC AGAAAATAAAATGAAAACCTCA GTTAATTGTGGATTG (SEQ ID NO: 218)
CTP8C	Human DNA sequence from clone RP4-734P14 on chromosome 20	HSJ734P14	CAATATTCTTAAGAGTTATT TAAACTAGTTCACAGGCTAC AAGGAAGTATTAGGACTATG TACAGCCTGACGGAAACAG GCAGGGAGCTGAGGAGGGCC AAGATGAGTCTAGGGCCTTGG TGGGCGCATTCCGGGGAG GGGGCCCTGAAAGGGAAACC AGACAATCCTGTGAGACTCCA AGAACAAACGGCATAACAAACA AACACGCTGTGGCAATCAAG CTT (SEQ ID NO: 219)
CTP10Y	Canis familiaris mitochondrion	CFU96639	AGTAGATGGGACCGAGAATAA TTT TAGGGTTAAGGGATAGGA GGAGTAGGGGCAGTAGGTGC AAGGTCAATTAGGGCATTTC CGTGTGAATGATGGTTGATA TTTTGATATGGTGGGAATATT TACCACGTTGTGTGGTGATTA ATATATAAAAGTGAGTATAGGG CGGTAAAAGCTT (SEQ ID NO: 220)
CTP11A	cyclin-dependent kinase inhibitor 1A (p21, Cip1),	BC001935	ACTAAGAAATATTATTGAGCA CCTGCTGTGTACCCAGCACTG CGGGAGGGGCTGTGAGAGAC CCAGGGCAGTACAGGACTTGT TCTTGCCCTTCAGAGGCTTAT AGTCTAGGTGGAAACAGGAGA ACCAGGACACATGAGGAGCC AGGAGAAAACAGTACAGGCCA GGATGTTACAGGAGCTTACAG TGTTTGGGGTCAGACCCACTA AGTGCTTCAGTACCTCTAGGG GCTCAATGTTACAGGGCCAGAA GAGACAATAACTCACAACTAG CCCATGTAGCATGCCCTATCC ACAGCGTCTACCTCTGCTATC TTAAAACATCTGACTCCTCGTT AAGCTT (SEQ ID NO: 221)

CTP16B	Homo sapiens cDNA FLJ20541 fis, clone KAT11364	AK000548	CAAAGAATTTGTTTATTATA GTACATGAGCTGGACTGATGG GAAAGGGTAGGTGTATGGGC AACCACTGCCAGATTAGCAT CGGATGCCATCCCGATGCC CATGAATGTGCCAAATGTGCC GCCACTCTGCATCATGGTTT CCCGATGCCGCCATCAGCTC CCGACCCCGCATTCCGATCCT GAGACAGGAAAAGGTGCCGA AGAGCGCCCCGGCCGATG CCCAC TG CACA ACCC AT CACA AAGCCCATCTTCACGCGGTAA AAGCTT (SEQ ID NO: 222)
CTP17G	No significant match		CATATATATTCTTTTATTCT TGTTATACCTTCCAAAACAGA GACATTCAACAGTAGTTAGAA TGGCCATCTCCAAACATTTAA AAAAACTGCACCCCCCAATGG GTGAACAAAGTAAAGAGTAGT AACCTAGAGTTCAAGCTGAGTA AGCCACTGTGGAGCCTTAAGT GGTGAGGTCTTCCAATTTCAG AGTGATGTCTTCACTTGTA TCATCATTTAGCGGTAAAAG CTT (SEQ ID NO: 223)
CTP18B	No significant match		CCAAAGAAGTGTATTAAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCA AGGCCTGCAAGACAGATCCCA TTGCTCAGGAGGCAGCCCAG ATTGCAAATGGAAGACAGG (SEQ ID NO: 224)
CTP19F	Homo sapiens chromosome 5 clone CTB-187A7	AC008651	AAGCTTTACCGCAATGAGGG ATTTATACATGAAAAATGGACA AGGCTTGCATTAGTTACTCC ATCACAGCACAGTCTACATTAA ATGATTACAAGATCTGAGAG AGCAGATTCTCGAGTTAAAG ACACTGATGATGTAAGCTGAC TTCCTAATAAATATATTACTT G (SEQ ID NO: 225)

CTP20B	Bos taurus ribosomal protein L30 mRNA	AF063243	AAGCTTAACGAGGAACAGGCCA TCAGGGCTGCCAAGGAAGCA AAAAAGGCTAAACAAGCATCT AAAAAGACAGCAATGGCTGCT GCTAAGGCTCCCACAAAGGCA GCACATAAGCAAAAGATTGTG AAGCCTGTGAAGGTTCCGCA CCCCGAGTTGGTAAAAACGC TAAGTTTAGTGGATCAGATT TTAAATAAACATCTGACTCTAA CT (<u>SEQ ID NO: 226</u>)
CTP21A	Rattus norvegicus ribosomal protein L31 (Rpl31),	NM_022506	CATGGAGCNGTTTATACCTTT ATTTGACAATCAGCGATTAGTT CTCATCCACATTAACAGTCTGT AGATTTTGAAAGTGGTGACA GGTACGTAGGTAACCAGCGTG TAGAGCTGTTGGTGAATCTT CATCCTCGTTAACGCTT (<u>SEQ ID NO: 227</u>)
CTP22C	Canis familiaris mRNA for ubiquitin-ribosomal protein L40, fusion	AJ388512	CAATGGTGTCACTGGGCTCGA CCTCAAGGGTGTAGTTTGC CCGTCAGGGTCTTCACAAAGA TCTGCATCTCTGCGTCTGCTG GAGCGAACTCGCAAGGCCGC CGCCACCAAACCGCTCGCCC ACCTCGTTAACGCTT (<u>SEQ ID NO: 228</u>)
CTP25D	No significant match		AAGCTTGCACCATATATATAAC TCTTGGGCAGAGGGTCTGGC ATACATAAGTAGATACTCAGAA ATATCTGTTGGATTGTGTTGAT TTAATTATTTGTGTTGCTTC TTTAAAGATGAGCACTTCTA TTAGATATTTTGATCAAAA AAAAGATATTTTGATCATA CAGATTTAACGAGGATTTTAT TAATTCGTTCTCTCCTGGTT GG (<u>SEQ ID NO: 229</u>)
CTP26A	Canis familiaris chymase gene	U89607	CATGAGAGAGACGGAAAGAG AGGCAGAGACACAGGCAGAG AGAGAACGAGGCTCCATGCA GGGAGCTGACGAGGGACTC GATCCAAGACTCCAAGATCG TACCCCTGGGCCAAAGGCAGG AGCTTAACCGCTGAGCCACCC AGGTGTCCCAACTGTCAAGGGT TTTAAAGAGTGAAGTGAATTT GGGGAAATATCAAGGCACAGT CATATTCTAAACATAATACGT TGAGAACGCTT (<u>SEQ ID NO: 230</u>)

CTP26B	H.sapiens cycA gene for cyclin A	X68303	AAGCTTCTCAACGTATATGGT GTACAGTTTGTAAGGTTTA ATTTACAATCATTCTGAATAG TTATGGTCAGTACAATTATG GTATCTATTACTTTAAATGG TTTAATTGTATATCTTTGTA CATGTAACATCTTAGTTATT GGCTAATTAAAGTGGTTTGT TAAAGTATTAATGATGCCACCT GTCAGCACAATAAGAGTAAGA ACTAATAATGGATTGG (<u>SEQ ID NO: 231</u>)
CTP27C	Homo sapiens CTCL tumor antigen se20-10 mRNA	AF177227	AAGCTTCTCAACGTATTCAAG AGAAAACCTCTAAATTGCCAG ATATGTTAAAGACCATTATCC ATGTGTGCTTCACTGGAGCA GTTAACAGAGTTGGGAGGTGA AACTGATGTTTGATGCCGT CCTAACACAGCCCTATGCCCG ATGTACTCAGAGACTGGAACA GCACAAGAGAAATAAGCAAC AATCAGTAATGGG (<u>SEQ ID NO: 232</u>)
CTP28D	Homo sapiens upstream binding protein 1 (LBP-1a) (UBP1)	NM_014517	AAGCTTGGTCAGGCAGGAAT AGGAATGAGTAATTGGGCTT TGAAATCTCTCCCAGAAGACA AACTACTTCGATGGGAAAAAG CTTGACATTTGTGTTTATT TGTAGAGGGGGTTATTGGATA CAGAGGAGCCTGGTCTCATAAC ATTTCATCTTCAGTCTGAAAAA GATCTGTAATTCTGTAGACCC TGAAGCGGGGGAACTTTCTT TCTGCCATCTCCCTTGCTTC ATATGAACACCTCTTGTACC AATCATTGGAAAAGAAGTGA GCATATCTTTGTTAAAGT TTTGCTTGNCCTGGTTAGCATT CCTTTGAGCTAACATATATG GAACAATAATGTCATTAAATG CTGNGNGCTATTGAAATTCC TCATCAGGTTTAAAGTGGG GTCAAGAACACTAAAGCTC ATTGGACTTGAAATTATNCCA GCCGCCNTTGACCATTATCTG GCCCANCAAAGCAGGTTAAAT TATGGCNCCNGCAAATTGCT TTTTTTTTAATAGNNGGANGN NTACNTTCAGNTTAATAATG TTTCCGATGGTTGC (<u>SEQ ID NO: 233</u>)

CTP30E	Homo sapiens BAC clone CTB-60N22 from 7q21	AC003083	GGTCAAAGTGTATAGTTTGA CTTACCCCTCCCAGATCCTGA ATGTCCTTTGGAGTTTCAG ATACGGTGACAGAAGGTAAGT CAATGTAAAATATTTTCCCCA GAGTGGCTTATATTGTATT TCTGGTTTGTATCAGTTTCA TAGATTTCATAGATCTGTTT TTCATTTTGACTGGATTCCA CCTGTTTTAAAAAAAGTAGA ATCAGATCATGATTATGTGGA CAGAAAATTCTCTTTAAAAAA TACTTTTATACAGTCATCATT TCATAGAGGGGGAAAAAATCT TTATAATACCACCAATTAAACA CTCAATAGCATTTACTGTATT TCTTCGTAGTATCACTTAGGAT AAAACCAGAACATACCATATTGT TTAACAGATCCCATACTGTAA AATAATCATCGTTCACAGCCTA CAGTCGAAGCTT (SEQ ID NO: 234)
CTP31A	No significant match		GGGGCAGATAAAAACACTAA TGTAAAATTACCCCTCTCAGAA AAATTCAGTATGCTATAACG GTATCACTAACTATAGTCACTA TAGTATACAGTAGATCCCCTAG GATTATTATCATGATGTACAGTC GAAGCTT (SEQ ID NO: 235)
CTP32D	cDNA FLJ14795 fis, clone NT2RP4001219	AK027701	AAGCTTGATTGCCAGAGTTAC GAAAAGCATCAAAGCATCTT ATGGTCAGCTAAATTGGTA CACTAGATTGTACAATTCATGA GGGACTCTGTAACATGTATAA CATTCAAGGCTTATCCAACAATA GTGGTGTCAACCAGTCCAAC GTTCATGAATACGAAGGCCAT CACTCTGCTGAACAGATCTTG GAATTCATAGAGGACCTTATG AATCCTTCAGTGATCTCCCTG ACACCCACCACTTCAATGAA CTGGTTAAACAGAGAGAAACAT GACCAAGTCTGGATGGTTGAT TTCTATTCTCCATGGTGTATC CATGTCAAGTCCTAATGCCAG AATGGAAAAGAACATGGCCCGGA CATTAACCTGGACTGATCAATG TGGGCAGCGTAGACTGCCAA CAGTATCATTCTTTGTGCC AAGAAAATGTTGGAGATCCC TGAGATAAGAATTACCCCCC (SEQ ID NO: 236)

CTP34A	Homo sapiens ribosomal protein S29	NM_001032	AAGCTTGGTCAGGGCTCTCG TTCTGCCGCGTCTGTTCAA CGGGCACGGTCTGATCCCG AAATACGGCCTAACATGTGC CGGCCAGTGTTCCGTCAAGTA CGCCAAGGATATAAGGCTTCAT TAAGTTGGATTAAGTGAACCTTC CTTGAATGGGTCATCCAAGAT ACCTACCTTAAC TGCAAGATGT CCAAGATA CCTACTTTGATGC CAACTCATTGTATATAAAAATAA AAATACTCCAATTATGAGTGTT TTAATGTG (SEQ ID NO: 237)
CTP36A	No significant match		CAAGTTTACCAATTGTTTAAT TATTGAAACAAAATTAAACGTAA GTAGAACATGTGCAACAGTG TCTCTAACATATGGAAGAGGT AAATATGAATTTATAACAATAA GGTATATTATCCACTGTAACAA ATTTCCAATAATTGGCATTAA TCTTTCACAAAATGTCTCCAA ATTCTAACGAAAGTATGCAAAT TGGAGATTAACTCTAACACAGG CATAATTATCTTCTTATCCAGT TTTCTGAAGAGACTGAAGAG TTCAGGTCTGACCAAAGCTT (SEQ ID NO: 238)
CTP37A	Homo sapiens nuclear factor associated with dsRNA NFAR-1	AF167569	CAGATGTGATAAAATCGTTTC ATTACTGTCAAAGGCATCAAC CAGATTGGGAATTGTTAAAAA GGTTAAAAATTACATACAAAACC TGCTGTAATTAAAGACAAAGG TAGATTAATGCATCATTATC TGTCTCTTAAATAAAGTAATGC TTTCCATAAAAGCAAAGGTG GGCTTTGCCTGATGCTGAC CAAAGCTT (SEQ ID NO: 239)
CTP41B	Homo sapiens mRNA for KIAA1392 protein	AB037813	GGGAAGTGTCAAGGATCAGTT CCGTGGCACCCCTTGACACACA GACTGGGAGCAACACGCATCT GTGGCATTAAAAATGGAATT GGCAACTTCATGACATTGGAA TGCAATATCACACTTACAGTGT CTAGACTTTCTATGTGTGCT CAGTTACAAGTAGTGAAGCAA AAGTATACATATCACCCCTACT GCTATTGGTTGCTACAGAGC CATAAATGTGAAAAGCAAACT CTGAAATAAAGATTGTTTT TTGCCCTAGCCTACTAAGCTT (SEQ ID NO: 240)

CTP47G	No significant match		AAGCTTGCACCATACTCCTCC TCTACATATGCTCCAAATTAC CTTCTAAAAGGCTGTATTAAAT TTACTTCAACCAGTAGTATTAT GAGAGTGCCCAGTGTCCCTAG CCTTTAAAATTCACTATGAGC AATCTTAAATCATGTACTAA TCTTATAGGCAAAGAATAGGG CCTTGCCCCCTGCCCTGTT (SEQ ID NO: 241)
CTP50A	No significant match		ATTCCTTTCCAAGGACCTCTC TTCTATGTGATCACTGAGTAA GTTCAGTCACTCCCATCATCT CTAGATTGGAGATTCCAAATT TATGGCCTTCCTAACCTTGAA GTCCTTATTCTAACTGCCTAC TAAGCTT (SEQ ID NO: 242)
CTP51A	Homo sapiens intestinal N-acetylglucosamine-6-O-sulfotransferase	AF219991	ATAAAATAGAGATGGGGTCTT GCTATGTTGCCAGGCTGGTCT TGAACCTCTGGGATCAAGCAA TCTGCCTGCCTTGGCCTCTA AAGTGCTGGGATTACAGGTGT GAGTCACTGTGCCTGGCCTCA TATAGTCACTATAACAGCCTAC TAAGCTT (SEQ ID NO: 243)
CTP52B	No significant match		AAGCTTAGTAGGCAATAATAG AGAAGTAGAAATTGAATGTGG AACATTAACCATTAAAAATCAT ACTTTGAATGTGCTGAGGTC ATGAATTGTTTACCTTCTTT GTAATTGTGTTTCAGATTT TCTGTAGTTAGCATATATTCTA TAATCAGAAAAAGATGCTTCAA GTTTTTGCAGATTCACAGAA TTTGTCTT (SEQ ID NO: 244)
CTP53A	No significant match		AAACAAAATTCTGTGAAATCTG CAAAAAACTTGAAGCATCTTT TCTGATTATAGAATATCTGCTA ACTACAGAAAATCTGAAAAC ACAAATTACAAAGAAGATAAAA ACAATTATGACCTCAGCACA TTCAAAGTATGATTTTAATG GTTAATGTTCCACATTCAATT CTACTTCTCTATTATTGCCTAC TAAGCTT (SEQ ID NO: 245)

CTP58A	No significant match		AATTGTCACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTGATCCCTGATCTAG GCCTCGGCTTTCAAATGCA GTTGATCAAACGGGATATGC TCGGCTGAATCTGCTCTG GTGCTTCTCTTAATCGTTTC TCCTTAAATGGGTTACTTTCTT ACTAGGAAAAAAAATGTT CACCTCTGGAATTAACGTTGA GAAGCTT (SEQ ID NO: 246)
CTP59A	Homo sapiens cyclin D2 (CCND2)	XM_012143	AGGTCAAGGTGAGTTATTGT CCAAATAGCATAACCTAATTG CATTAAAACCATTTCAAATC CATCTTAAACTAGTCAGAAAA CAGGTTATTATTTTTAAATC ACTTAACACTGAACAGATAAG ACCTCTAAAAGGCAGCTGAC TATATCATGTCACCATCATAGC CAATACAACATTTCGCCATAC TTCTAAAAACCTTTCGCATA CACTGATCATGCTACTTATCA GCACTTTAACATCCTGACCA AAGCTT (SEQ ID NO: 247)
CTP60B	Homo sapiens RNA binding motif, single stranded interacting protein 1 (RBMS1)	XM_016120	ACTAAAATAAACCTGTTGGG GGGAACAGCTACTAGATGAAT TTAAGGGTTATGCACCTTAT AGAACTTATAGAAAAATAGTT TTAGTTGATTCATTATAAATA ACGTTTCAGAACCTGTGCA AAACTGTCAATAATTCTCAA GCACAATTGATCAGAAAAATC CATGATTGTTCAGCCTTCACA CCCTTCTCATGTAAGAACAC CCTTCTGTACATCTCACAGTTA CTTATTAGGTTGAAAGGTATAT GGTGAATGGTCATTAGACGTC TCGACAGCCACCTGCTGCTGA CCAAAGCTT (SEQ ID NO: 248)
CTP61D	prion protein [mink, Genomic, 2446 nt]	S46825	ACATTAATGCCAGTGCAAG CCAGGAACATTGCGAGATGCT AAATTTATCTGCTAGGTGATGA TATTGAACGATCTAGACAATAA TTTCACCTTACTTAAATAACAA TGAACAGAATTCCCTTTTCC ACTCTGAGTGGATATTCTGT CATCTCTGACCAAAGCTT (SEQ ID NO: 249)

CTP62A	No significant match		AAGCTTCGACTGTCGCATCAA TGAATGTTTAAGTAATAACCT TGCTGGTTATCAGCTTGATGG TGCATTAATTATGGCTCATT TCCTTATTTGACCATTGTCG GATTCTTCATTTATATTGGAC GATCCCCAATCGAACGGTACC AATTTTTCAAGCTGTGATTGCG GCATGTTCAACCGCACCGTT TTTGAATTTAAAACATTATT TGGCTGGGTATGAGTAATT CACCAGCTATGAAATCGTTAT GGTGCTTTGCAGCAGTCCCT ATTTTCTACTTTGGATCTATC TGTCTTCCAATATCATTATT GGGTGTAGAAGTGAGTTATGC ACTCACCGCCTTCATTCTGG T (SEQ ID NO: 250)
CTP63A	No significant match		AGAATCAAGCCACCAGGTGTT TATTTTGCACTATAAATAGAG TTCCCTAGTCCCATTGTTAC ATAATATGAGATAACAGAGA ACCTAAAATTCAATTGGTGAAA ATCAAGTGTGTAGTATACCTAA ATACCAATGAGCTAGTAAGAC TTGTAAGGCACTGAAGCTAAG GCTAACAGCAACAGAGTCCTT TATGAAAATAATTCAAGAACCA CAACGCATTCTCTGATGGTGC ATTCCCTGGACAGTCGAAG CTT (SEQ ID NO: 251)
CTP64B	No significant match		CATCGCAGACATTATTAGT TTGTTAATTCAAAATATTCAATT AACCTCTTGTATCAGATTAAAG GCAGAGAAAAGATAACACGCC CTGGTTAACTGAACCGGGGTT TAGATAGTGTAGTCCACCTG GGTCCACCAAGGGAGACCTCA CCCGAGATGACAGGTCCGGTT GCTGGTGCACAGTCGAAGCTT (SEQ ID NO: 252)

CTP65A	Pig mRNA for endoplasmic-reticulum Ca(2+)-transport ATPase (class 3 non muscle transcript)	X16951	CCATTTAAATGTTTATTTCTTTTAAACTAGATTGTGAAGTGCCACTGAAATAGGCAATGTTGGAAAACAATGTCTGTTACATAAAAATACATTAGACATTTAAATAAATAACCTAAAAACTACATGGGGGACATGAACCCAGTCGATTGAATCTGGAACAATGTTTCTGCACAAGCGAGAACAGGCATACCTCTGTTAACACTGATGTAAACAGAACCATCGAACCTACAGTCGAAGCTT (SEQ ID NO: 253)
CTP67A	clone RP5-1071L10 on chromosome 20	AL133228	CACGTTTAAACTTATTGCAATTAAAAAAATTGTGCATTCATAATAATTAAATCATTGAACAAAAAAATGGCACTCTGATTAAACTGCATTAAACAGCCTGCAAGATACCTGGGCCAGCTTGGTTTTTACTCTAGATCTCACTGTCCTCCCACCCAGCTTCTCC TTCACCAACATGCAAGTTCTTTCCTCCCTGCCAGCCAGCCA GACAGGCAGATGGGAAAGGCAGGCGCCTCGTTGTCACTAGTTCTCCATTCTTGATGTGAAAAGGGGCAGCACAGTCATTAAACTCGATCCAACCGCTTGCA TCTTACAAAGTTAACAGCTAAAGAAGTAAAATAAGAAGGCAATGCTTGTGGAATGTACAGTGATATTGGCGGCGCACGCCCTATTACGATTGGCTACTAAGCTT (SEQ ID NO: 254)
CTP68F	Oryctolagus cuniculus New Zealand white elongation factor 1 alpha Rabefla2)	U09823	CTCATTAAACTTTGTTTAATGGGTCTAAAATTCTGTGACA GATTTTTGGTCAAGTTGTTCCATTAAAAAGTACTGATTTAAAAACTAATAACTAAAATGCCCCACACACGCAAAAAAAAAAAAAAAAACAAATGGTCCACAAAAA CATTCTCCTTCCTTCTGAAGGTTTACGATGCATTGTTATCAT TAGCCAGTCTTTACTATTAAACCTAAATGGCCAATTGACACA AACAGTTCTGAGACCGTTCCACCAACTGATTAAAGACTGGGTGGCAGGTATTAGGGATAATTTCATTTAGCCTACTAAGCTT (SEQ ID NO: 255)

CTP70A	No significant match		AAGCTTAGTAGGCACGCAATA AATAGGAGAATGAATCAGAGT CCTCCAACGCGTCCTCCCTAA TGTCCCTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTG TCCATGTCACTTCGCTCCAGA GCAGCCGCAAGAGCATCTTAA CACCTTGTGGCCTGAACCTCTC TCCCACCTCCACTGTACAGT GATATGACTGAAACCTCATTTA ACCTTTAGAACTACCAGGAG GAGGTTCCAAGGATCCCAG G (<u>SEQ ID NO: 256</u>)
CTP71A	Canis familiaris caveolin-1 mRNA	U47060	CACTGAATCTCAATCAGGAAA CTCTTAATGCACGGCACAAC GCCAGATGTGCAGGAAGAA AGAATGGCAAAGTAATGCC CATATGAGTGCCATTGGATG CCAAAGAGGGCAGACAGCAA GCGGTAAAACCAGTATTTGT CACAGTGAAGGTGGTGAAGCT GGCCTCCAGATGCCATCAA ACTGTGTGTTCCCTCTGGTCT GCAATCACATCTTCAAATCAA TCTTGACCACGTCGTCGTTGA GAAGCTT (<u>SEQ ID NO: 257</u>)
CTP72B	No significant match		CCATTTTGCTCTAAAGAGCA TCTTAAGTGAGAGATCATGAC AATCTTGGCCACTCCAGGTT TTCTCATCTACTACATGATCTG TTCCAACAAATAAGCCATTGA AATTAAAGGTCTCCAGAACAGTT TATCTGGGTCTGTGATTGAA AAGAAGGAAAATGAGATGAGA GAUTGCCTACTAAGCTT (<u>SEQ ID NO: 258</u>)
CTP73A	Homo sapiens chromosome 11 clone RP11-546N8 map 11q	AC026201	CAAGCCCCTCAATTAGTGTTC TTTTTATAGACATTACACACAA CACATATATAGTACACACAAAC ACAAGATTCAACACTTGTAAAG ATTTTTTATTCGCCAGTTCTT AATTGGATTACTGGCATCAGG GTGGAAACTTAGAGGAAGAG AGCCAGGTAGCATGCATTCT AGGGCCTACTAAGCTT (<u>SEQ ID NO: 259</u>)

CTP73B	No significant match		CCCATAGAACATCTTAAAA CATTAGAAATACTCAGGATAAT CAAGGCTAATATTCCTATAAAT TCCTTACGTGTATTATGTACAT TCAGAAAAGTGTAAATTACTCA AATATTACTCAAAACCCCTT ATAGTCTGCTAACTTGATGTA GAAACATCTGAAGTAACATGC TGCCTACTAAGCTT (<u>SEQ ID NO: 260</u>)
CTP74A	No significant match		AAGCTTAGTAGGCATCAATTG GATCCTTCCTATGTTGAAATG GAAGAATTAATGAGCTTACATT AATTAGTATTGTAATGTGTAAA GGAAGCCCAGCAAAATTTTT GAAAACTTGATGATCCCAACG TATTTACCATGTATGTTAAAG CAAAATAAATCACCATTTTTT A (<u>SEQ ID NO: 261</u>)
CTP75C	No significant match		AAGCTTCTCAACGGCCTCCAC CTCCTTCTGCCCTCACAGCC TCCTGGCTCTGGCCAAAAAG TGATTCAATTGTAATATTATCAT GGTTTCTGCATTAATGGC CATTCTGG (<u>SEQ ID NO: 262</u>)
CTP76B	No significant match		AAGCTTTACGCCATCTTGG CTCCTGTGGAGGCCTGCTGG GACCAGGACTCTAAAGCGAC GANTTTTNTGGAAGGCTTG GTCCAAGGCCATTGGCCGG CTATAAACGGGTCTCCGGAA CAAAGGGAGCACACAGCTCT TCTTAAATTGAAGGTTTAC GCCCGAGATGAAACAGAATT TATTGGGCAAGAGAGATGC TATGTATATAAGCAAAAGAAC AACACAGTCACTCCTGGCGGC AAACCAACAAACAGNAGT CATCTGGGAAAGTAACCT GGGCCCATGGAACAAAGTGG CATGNGTCCGTGCCAAATT CGAAGCAATNTCCTGCTAAT GCCATTGGACACAGAATCCGA GTGATGCTGTACCCCTCANAG GATTTAAACTAACGAANAAN CAATAAATAATGTGGATTGC GNTCTTNGG (<u>SEQ ID NO: 263</u>)

CTP77D	No significant match		CAATTGGTTAGTTTATTC AAATTGTACAAAATGGCCATAA GCGGCTATAAAAATTCGTT TCGGAACACGTGGAAATTCAG AAAGAACACAAGCAGGTTA TCATTCACAGTGAATGGAAA AGCTCTCTGAGGCAGGAAT CACAACTCTCCTCTTCTCC CCAGTCTCTCGTGGTCTCCTT CCCGGAGCGCTCGAATGAAA CTGGTAAACCCCGATTCCGTC CGATCGC (<u>SEQ ID NO: 264</u>)
CTP78B	Homo sapiens SON DNA binding protein (SON)	XM_009738	CGATGTTGAGATCCAGATGAC ACAGGAAATTCTTTGTTAATG TTACCTGGCTTTGGTGGAG TTGGCTTGCTGCAGCAATAT TCAGATTGAAAAAAATGGGTTT GGGTTCACTGAGTTAAAGGG ATGATGATAAAAGGAGGTTC TTCTTCCTCTTCATCCCGAAAC ATGAGGCTTATTCACTATTACA TCATCATCTTCTTACTCTGTG CGATCTTTGCATTCTCAAG TTAGTTCTTCTATAGTNGCTCC TCCTGATTTTAGCAACTTTC TCTTCTATTGTGGGTGGAGGT GCACGCTTTAGGTTGGCGG GTAAAAGCTT (<u>SEQ ID NO: 265</u>)
CTP79B	No significant match		CATATATATTCTTTTATTCT TGTTATACCTCCAAAACAGA GACATTCAACAGTAGTTAGAA TGGCCATCTCCAAACATTAA AAAAACTGCACCCCCCAATGG GTGAACAAAGTAAAGAGTAGT AACCTAGAGTTCAGCTGAGTA AGCCACTGTGGAGCCTTAAGT GGTGAGGTCTTCCAATTCTAG AGTGTATGTCTTCAACTGT TCATCATTTAGCGGTAAAAG CTT (<u>SEQ ID NO: 266</u>)
CTP80A	Homo sapiens WDR4 gene for WD repeat protein	AB039887	CGCCGGGCCAGAAAGCGTAATA TTCTTAAAGGAACCTTAACAA AACTTACACTTAATAATGTAA ATCTCACCATGTTCTAGTC AAATTACTACACAGACTCAGT AGCGGTAAAAGCTT (<u>SEQ ID NO: 267</u>)

CTP81A	No significant match		CCAAAGAAGTGTATTACAT TTGGGGCCTCAGGGGGCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCA AGGCCTGCAAGACAGATCCA TTGCTCAGGAGGCAGCCCAG ATTGCAAATGGAAGACAGGCC ATGGTAGCGGTAAAAGCTT (SEQ ID NO: 268)
CTP85D	Homo sapiens Rho-associated, coiled-coil containing protein kinase 1 (ROCK 1)	XM_008814	AAGCTTAACGAGGGAGACAGAG GTCATGATTCTGAGATGATTG GAGACCTTCAGCTCGAATT CATCCTTACAAGAGGGAGGTGA AGCATCTCAAACATAATCTTGA AAGAGTGGAGGGAGAAAGGA AAGAAGCTCAGGACTTGCTTA ATCACTCGGAAAAGGAAAAGA ATAATTAGAGATAGATTTAA CTATAAGCTTAAATCATTACAA CACGGCTAGAACAAAGAGGTG AATGAACATAAAGTAACCAAA GCTCGTTAACTGACAAACAT CAATCTATTGAAGAAGCAAAG TCTGTTGCAATGTGTG (SEQ ID NO: 269)
CTP86F	Homo sapiens chromodomain helicase DNA binding protein 3 (CHD3)	NM_001272	AAGCTTAACGAGGGACCAAGA AGCAGAAGGAGAACAGCCA GGAAAACCCCGAAAACGCAAG AAGCTTGACAGTGAGGGAGGA TTGGCTCTGAGCGAGATGAG TACCGGGAGAAGTCAGAGAGT GGAGGCAGCGAATATGGAAC GGACCAGGTCGAAACGGAG GCGGAAGCACAGGG (SEQ ID NO: 270)
CTP87B	Homo sapiens tetratricopeptide repeat domain 3 (TTC3)	XM_009760	AAGCTTAACGAGGCATGTGAA AATTATGAGCAGAGAAAAC AAGGGCTCAGAACAGAGACCAG GGATCTGGAAGAAAAATTGAA AAGGAACCTAGAACAGAAACAA GATCTCAAAGACAGAACATTAGA TTGGTCTTGAAGACTTGGAA AAAGGAATCAAGAACATGGCA ACAGGAG (SEQ ID NO: 271)

CTP88A	Rattus norvegicus ribosomal protein L31 (Rpl31)	NM_022506	AAGCTTAACGAGGATGAAGAT TCACCAAACAAGCTCTACACG CTGGTTACCTACGTACCTGTC ACCACTCTAAAAATCTACAG ACTGTTAATGTGGATGAGAAC TAATCGCTGATTGTCAAATAAA GGTATAAAACTGCTCCATG (SEQ ID NO: 272)
CTP89B	Homo sapiens genomic DNA, chromosome 8q23, clone: KB1935H12	AP003473	CTAAAGGGCCAGATAGTAGCT GTGGGCTGGGGTCTCAAAC GTGTTGCCACTACTCAAAC TGCCATTGTAATGTGAAAGTA GTCACAGACAAAATATAAAGA AATGAGTGTGACTGTGTTCCA ATAAAACTTTACAAAGC ATTCACTGGGCTGGATTGGC TTTGGGCCATAATTAAATCCC CTCTGGTAAAATAACTCACTATT TTAGCTGGATCATGAGTACGT GGAAGCTT (SEQ ID NO: 273)
CTP90A	Homo sapiens clone 24800	AF070622	ACAGGTTCATCTGAATACATA TTTATTAGATAAAATATTAGAGG TTGTCACATCATCTAACTACAT ACAGCTTGCAAGACTAGAAA TCACAATTAGTTTTGACCAG TTTAAAGTATGAAATGATTGCA TTGTACATACGATGTACAAAG ACGATGATGGTTCTGTGGGA GTTACTTCAGGCTGCACTGGT GGGTGTGTTATGTGTACG TGGAGCTT (SEQ ID NO: 274)
CTP92A	No significant match		GCACTAAATTCAAACCAATGA CCTCCCATGTTCTAATTCTGAT TGTAACTCCAACTGGGAGGG TAAACGGGAGACTCTTGGCC TGTCACTGACAAAATGGTTG AAAAAAAAAGAAAAAAATAATACG ATATACAAGTAAGTATAACTAG CACTCAAGCTT (SEQ ID NO: 275)
CTP92C	Human DNA sequence from clone RP4-580N22 on chromosome 1q42.2-44	AL133286	GGGGTGTGAAGAGCCTGTT TTGTCATATTACCAAGAGTTGGT TTTCTGGTTCTCTCATTTGG GTAGGCTCTGTCAAGAGAGAAC GTCTAGGGCTGAAGGCTGTTG TTCAGATTCTTTGTCCCAAGT GGTGTCCCTTGATGTAGCAC TCAAGCTT (SEQ ID NO: 276)

CTP93F	clone RP1-211D12 on chromosome 20q12-13.2	Z93016	AAGCTTGAGTGCTGTTGCTGA TGTACAACCTAAAAATGTGAAG TTTAGCTTAACCTTTGTA ATAAAAACTAATAACACTGGCT TAAGTGCCTGACTTGAAATGCT ATTTTATAAAAGTTGGATGTA ATAATCAATCGAGGTCAGCAG TTTGTATATGTAGGAGACATA GCTTCCTCCCTGCACCCCCCA TTTTTAAAATTGAGGTGCT TCCTGTGTGTTTATGTTAGA ATTGTTCTCCCTCCCTTCTACA CGTGGTCACCTTGTTAAAT AAACTGTCCTTGG (<u>SEQ ID NO: 277</u>)
CTP94B	Homo sapiens clathrin, heavy polypeptide (Hc) (CLTC)	NM_008305	AAGCTTGAGTGCTGTATCCTG TGCTTTTCTGTGGGACCATT CCATTCAAGGAGCAAAGAGCAC CATGATTCCAATCTGTGTGT GTTTACTAACCCCTCCCTGAG GTTTGTGTATGTTGGATATTGT GGTGTAGATCACTGAGTG TACAGAAGAGAGAGAAATTCAA CAAATATTGCTGTTCTTCAGT TTTGTGTGGAATTGAAATT ACTCAAATTAAAATAAATTAC TGGACTGTGG (<u>SEQ ID NO: 278</u>)
CTP99A	No significant match		AGCATATGTAAGATCTCTGGC TTGAGAAGACAAGTTATATA GCACTAAAAAACCATTTGTTA CATTAAATGTCGAACCTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTATGAGGAAATTG TGTAAATGATCTCTCCTCTAAA AAAGGACTCTCCCTATTATCA TAATGACCACACTGCCCCGTCC TTAAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT (<u>SEQ ID NO: 279</u>)

CTP100A	COX15 (yeast) homolog, cytochrome c oxidase assembly protein, clone MGC:8634	BC002382	AACATATAAAAACATTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTAAAAA AAGAAAGGAAGACAGGCAAAC AAGTGTTCACAGGAGCAACA GACTTCAAGGTACCCCCACA AGACACCCTGCACAGCAGGG ACGGGGACAGGGAGGATGAC CTCTTAGGGCCTGTGCCTTCG CAGAGGTGCTCGGCGGATGG GTGTGGCTTCTGGGTGTCT CCTCTTCTGTATCTATGCCG AAGCTT (SEQ ID NO: 280)
CTP103JJ	No significant match		AAGCTTCGGCATAGTTACTGT TTGATTTTAAGTTTTATATAGT TCTTAGTTTGAAAGAAATCCTT CAAGAACAGTTCTCTAAAGA GCATGTTTAATTAAATGCTAA TTAATTACCTTCTAGTTTC CAAATTAGTAGGCCACTTCAA TGTCTATTAAGTGAATAAAC CTTCTGAACCTAACATTTTA AATCGATTAACATTGTGCAA AAT (SEQ ID NO: 281)
CTP104I	No significant match		AAGCTTTTTTTTCAAAACG GATTGTAAAAACTGTATTTCT TACACTGTGCACAAACCTTTA TACTAAATAAAATCTAAACTAC ATTCTTCAGAAAGATGTTCTA GTATTTCTTAGGTCACTCC ATATGTAGTATGTACAGTGAG ACCACTTTAAAAAGCAATGA CTTAGGCCAACCAACCCTAAT GGTTTGTTAGACCATTCCCT GTTTTAATTAAAAATCATAGG GTTGTGCTTCTGTATAAGTTT GTACATTTACAATGTAAAATA CTGACATT (SEQ ID NO: 282)

CTP109P	No significant match		ATGCAACCACACCGAATTAT TGAACATTTACAAGTGATT CATAAAGGAAGGCTTTTCG TGCCTATATTGGTTACCATCAC TTTGCCCCATACAAATCTCA TGGTAGTCCTGCATGTAG CAGGAACCTAACAAATGTCTG CTAAATTGACAGATGGAGCCC CAGACGACCTAAAACCTGCAC TTTAGAAGCACTTACTTCATCC TGAGCTATTATGAATAAGGAA CTCAAGTGACTGTTAAAAGCA TTCTACTGATGAGTTGGTAAT GTTCTAAAGCAACATATCTCAA AGGAAAGGATATTGAGTTGT CTCCACCATAAAATCCTATTT TAAACAAAGGTACTACTTAAAA ATGGTCTTCCAAGGCCTCAG CAGAGGTTCTAAAGAGATGTG ACAATATGCCGAAGCTT (<u>SEQ ID NO: 283</u>)
CTP110A	No significant match		AACATATAAAAACATTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAAA AAGAAAGGAAGACAGGCAAAC AAGTGTTCACAGGAGCAACA GACTTCAAGGTACCCCCACA AGACACCCCTGCACAGCAGGG ACGGGGACAGGGAGGATGAC CTCTTAGGGCCTGTGCCCTCG CAGAGGTGCTCGGCGGATGG GTGTGGCTTCTGGGTGTCT CCTCTCTGTCACTATGCCG AAGCTT (<u>SEQ ID NO: 284</u>)
CTP111A	No significant match		AAGCTTCGGCATAAACGATCC ATTCTCCTCGGCCTCCCAAAG TGCTAAGGTTCCAGGCGTGAA CCACCATGCCAGCCTGTTCT TTTTTTATCTCTAGGTGGTGC TCTCCAGCTGTAGTAGAAATA GCATTTGTATTGGATCTATTT TTTAAATAGGGACTAAATACAG ACCATTTGTTAGAGTGAAATG CAAACAAAGAACGAGATT CTCTGGCT (<u>SEQ ID NO: 285</u>)

CTP112B	Bos taurus peroxiredoxin 1 mRNA	AF305561	CTCAGTTCAAGTTAACAGAAA CAACAAAAGATCAAAAGTGAT GCCTTGCTACTACTGTACATAT CAGTTGGCCTGCCCATAGCA CACCTCAGACCATCCTCTCCA GAGGAAGAAAGGCTGGCCTC CCCAACCCCTGCAGGAAAGG GCGGTCTTGTCCCATAACCA TACCACATCTGCAGAGTCTAA AGTCTTGTATAAGCATGACAA TAGTACAAAAAAAGATTCTGTT TTCATGGATCCCCACTACAG CCCGGACCTAAAATGGCGAG GCGCTCACTCTGCTTAGAGA AATATTCTTGCTCTTCTGGAC ATCAGGCTTGTGGTATCACT GCCAGGCTTCCAGCCAGCTG GGCACACTCCCCATGCTTGT CAGTAAACTGGAAGGCCTGAA CCAGTCGCAGTGTCTCATCCA CAGAGCGACCAACAGGAAGG TCGTTTACAGTGTATGCCGA AGCTT (SEQ ID NO: 286)
CTP113A	Bos taurus ribosomal protein L30 mRNA	AF063243	CTAGTTAGAGTCAGATGTTAT TTAAAAATCTGATCCACTAAAA CTTAGCGTTTCCACCAACTC GGGGTGCAGAAACCTTCACA GGCTTCACAATCTTGCTTAG GTGCTGCCCTTGCTGGAGCCT TAGCAGCAGCCATTGCTGTCT TTTAGATGCTTGCTTAGCCTT TTTGCTCCCTGGCAGCCCT GATGGCCTGTTCTCGTTGAGC CTTCCTAACTTCAGGTTCTGA TTCCTCTAGCCATTATATCAG CAAGAGATGCCCAAGTGTGG CCCTCTGGAATTGACTGCAC GGCGGGTTCTTCTTGAA TTCTTCCGACTGTCCCTTTT GTGCTTCTCTGTAGAGGAC AGTCCAGTTGTATGCCGAAG CTT (SEQ ID NO: 287)

CTP115B	Homo sapiens chromosome 17, clone hRPK.227_G_15	AC005899	CTAAGGTGATATAGAAGTGG CTAAGGGAGAGCCAAAGTTGG CAATCCCATTAAATCTTACA TCCTAAATTATGGCAATCACAA TGCCTGCCTGAATGAATATAG CAAGTCCTAAAGGATGTCTTC TGTGAGGGCAGATGGAAGTTT ACTTCAACTCAACTCCATCTAC TATTAAGGGAGGATAAGTC AAAGTAAGAGTTAATTATTCA ACATGGTTGTTCCATTATGA TTAACCAACACTATGGACCCC AGAAGCAGTTAGGTAAAAGGG ATTTCTAGAAGCTTAATTATG CCGAAGCTT (<u>SEQ ID NO: 288</u>)
CTP116A	No significant match		AAAAGAGCATACTTATCAGTT GAATGGGGATAGAGGTTTAG ATATTTCCAAAATATTATAAA ACACTTCATTGTTGAGAAATCA CTTACAGAATGGTGGCTATCA ACAAATAATTATAAATTTTAA AGCACAAGTCACATGTTTGT AACTCCTGTGTGAATTATT AGCTGTGACATTAAATTGAAAA CATCAGATATGTTTGGAAAA GTCTTAATTGAGAACAACTGA AGGAAGTTAACATCCAGAACATCA TATGTAGTTAGCTATTATGAT GATGCTTATTGACAGTATATT GCTAATATATTCTTCATGAAA TCTGAAGTTAACATAGTTCGTT GTGGAATAGTGTCACTGTAAC ATTCCTTACGAAGTTCAATA AACCAAGCTTGCCATAAAAAAA AAAAGCTT (<u>SEQ ID NO: 289</u>)
CTP117B	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN (RBP-J KAPPA) (M. musculus) (LOC82995),	XM_017740	AAGCTTTTTTTTTAAGCTGA TGTCTTATGACTTTTATGAGT CGAAATTGTTTGATTCAGCA AGTCAAATCTTGTAAAGGCC GCGTATTTTTTAAGATTATA TGAAGTCTGTGCAAAAGCTTT AAAAAGAAATGCCTCTGCCTT GCCTGCAATACATGCAATGTA CGTTAACCTCGTCTCTGTCT CAGACACTGTCCGTATTTACTT CCTTGTTTCTTTCTTAAT (<u>SEQ ID NO: 290</u>)

CTP119J	Homo sapiens SPR-2 mRNA for GT box binding protein	X68560 S52144	CAAAAGAAAAAAATAGTGT TATTAAC TACCAC ACTGTTATA ATACACTTAAACGTACAATAA GGTAGCCTTAAATTGAGGT GGTCTTAAGAATAACAAATGA ACAGAATTCCAAATTGGAAA TAGGTGAACTGCTGTAGTTAT AGGTATACATTTAGGAAAATTG TATAGCTTTACAAGACCAGC AATGAAACTTTATTTGTACAT TTTTTAATAATTGAAAATATAA ACAATAATTAAAAATAAAAGA AAATACAGCATAATAAAAAACA TACATTCTCAATTAAATGTAC TGGATACATATAAATTAAAGG GAAGAAGCAAAAAGGAAAAT GGTTGATATTTAAGTGCAGAC TGACTACCTAGACGAAAAAAA AAAAGCTT (<u>SEQ ID NO: 291</u>)
CTP121D	Human ribosomal protein L23a	U43701	AAGCTTCATTCCGACGACCCA AGACCCTGCGTCTCCGAAGG CAGCCNAAATATCCTCGAAAG AGCGCCCCCAGGAGAACAA GCTTGATCACTATGCCATCAT CAAGTTCCCCTTAACTACTGA GTCAGCCATGAAGAAAATAGA AGACAACAACACACTTGTGTT CATTGTGGATGTCAAGGCCAA TAAGCACCAGATCAAACAGGC TGTGAAGAAGCTCTATGACAT TGATGTGGCCAAGGTCAACAC CTTGATCAGGCCTGATGGAGA GAAGAAAGCATATGTTGACT GGCTCCTGACTATGATGCTTT GGATGTTGCCAACAAAATTGG GATCATCTAAACTGAGTCCAG CCGGCTATAAATCTAAATATAA ATTTTTCACCAT (<u>SEQ ID NO: 292</u>)

CTP122I	Human mRNA for KIAA0033 gene	D26067	AAGCTTTTTGGGACTG CTTTGATTAATGCAGTTATCC AATTAAGTGTAACTTTAA CTCAAAGTAAAAGAAATTCTC ACATGGTAACTACTCTATTAA ATGGTCCTGGAAACATTAAAC AGCTTCTGCTGCTTGCTTAAT GGTAATACCTTGATTCTTGA TTCTAGGACATAGCTGATTAT TAGGTAAAGTACTCTGTCAATT TTACCTTCACCCAAGACTGTC ATGTTAAAATACTTAGCTGT GGGAGAAATCCTGTCTGTT TTATTGTGAGAGGAATGGTCA TCCTCAAAGTCTGTTCTACTA CATATGTGGACTAATTATTT TTCTATCACAGTATTAACAAAT GGATTTATTGTAAATACAAGA AGATATTAATATACTATTCTTA TGTC (SEQ ID NO: 293)
CTP124B	No significant match		ATGGCAAAGCTGGTTATTGA ACTTCGTAAGGGAAATGTTAC AGTGACACTATTCCACAAACGA AATTATTTAACCTCAGATTCA TGAAGAAATATATTAGCAATAT ACTGTCAATAAAGCATCATCAT TAATAGCTAACTACATATAGAT TCTGGATTAACCTCCTTCAGTT GTTCTCAAATTAAAGACTTTCC AAAACATATCTGATGTTTCAA TTAAATGTCACAGCTAAATAA ATTACACACAGGAGTTACAAAA CATGTGACTTGTGCTTTAAAAA TTTATAATTATTGTTGATAG CCACCATTCTGTAAGTGATTTC TCAACAATGAAGTGTAAATAA ATATTTGGAAAATATCTAAAAA CCTCTATCCCCATTCAACTGAT AAGTATGCTTTAAAAAAA AAAGCTT (SEQ ID NO: 294)

CTP126A	No significant match		AAAGAAAGTAATTATGGAACTA GATTTTAACATTGTAAAATAC TAAATGATCCTTCAGTTGTAAG TTGATATATATTGTAACCTT GTGAAATTGATCCTTATGAAA ATACCACTTTGTGGAAGAGA GAATCCAACATGTAATATTA ATTAAAACAATCCATGTTACC CTATCCCTGCTCAATTAAACA GTGTATATAGGTCTAATAATAG CTCTGGAGCAACTTTATCAT GAGTCAAATATATTAAACACAT TGATGTCTTCTTGGTATATCTG AAAACAAGAGGTAGAAGTCCT GTTGAGAGTCTTAAAATAAC TATTTTACAAATGAAAAAAA AAAAGCTT (SEQ ID NO: 295)
CTP129A	Homo sapiens, Similar to cadherin 1, type 1, E- cadherin (epithelial), clone MGC:1151	BC007583	AAGCTTCATTCCGACGACCCA AGACCCCTGCGTCTCCGAAGG CAGCCGAAATATCCTCGAAAG AGCGCCCCCAGGAGAAACAA GCTTGATCACTATGCCATCAT CAAGTTCCCCTTAACTACTGA GTCAGCCATGAAGAAAATAGA AGACAACAACACACTTGTGTT CATTGTGGATGTCAAGGCCAA TAAGCACCAAGATCAAACAGGC TGTGAAGAAGCTCTATGACAT TGATGTGGCCAAGGTCAACAC CTTGATCAGGCCTGATGGAGA GAAGAAAGCATATGTTGACT GGCTCCTGACTATGATGCTTT GGATGTTGCCAACAAAATTGG GATCATCTAAACTGAGTCAG CCGGCTATAATCTAAATATAA ATTTTTTACCAT (SEQ ID NO: 296)
CTP131B	Homo sapiens similar to sperm autoantigenic protein 17	XM_006087	AAGCTTCATTCCGGGGACACA TAGCCAGAGAGGGAGGCAAAG AAAATGAAAACAAATAGTCTTC AAAATGAGGAAAAAGAGGAAA ACAAGTGAGGACACTGGTTT ACCTCCAGGAAACATGAAAAAA TAATCCAAATCCATCAACCTTC TTATAATGTCATTCTTCTG AGGAAGGAAGATTGATGTTG TGAAATAACATTGTTACTGTT GTG (SEQ ID NO: 297)

CTP133B	No significant match		CCAAAAAGAGCCATGCCAGA GGGAAAGTTGAAACGAAAGC CAAGTTTCATTTAAAAGGAAA CANTAAAGAGGTTAGCCAGAG AAACTTGAACCAAAGAAAAGA CAGCACGCTGTTCAGAATGGT CAATAAGAGCCTAAACGGTA CCCTCGGAATGAAGCTT (<u>SEQ ID NO: 298</u>)
CTP134A	No significant match		CCAAAAAGAGCCATGCCAGA GGGAAAGTTGAAACGAAAGC CAAGTTTCATTTAAAAGGAAA CATTAAAGAGGTTAGCCAGAG AAACTTGAACCAAAGAAAAGA CAGCACGCTGTTCAGAATGGT CAATAAGAGCCTAAACGGTA CCCTCGGAATGAAGCTT (<u>SEQ ID NO: 299</u>)
CTP135A	Homo sapiens cDNA FLJ11508 fis, clone HEMBA1002162	AK021570	CCATCAAATGTAATTATTAA ATAACAATTCAATTGCATGTTA AGTAAACCAGTTGTAGCAATA TAAAAATACAGAATTTGAGAA AATCTGGCAAATTAAACCTGTA TCTAAATGCAGCATATTCTGTG ATACTACGGAATGAAGCTT (<u>SEQ ID NO: 300</u>)
CTP143B	No significant match		AAGATTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGA GAGAGGCAGCAGCAGACTCC CTGCTGAGCTGGGAGCCAAGT TGGGACTCGATGCCGGGACC CCAGGATCATTACCCGAAGCT T (<u>SEQ ID NO: 301</u>)
CTP144B	No significant match		GGGTAAATCCGTCCAGTTAC TGTAATATGCCTTGACAAAC TGGTAACTCATGTCCCACATCCC AGTCCCGAGTACTGGACCAAG GGAAACTCCAGCCACAGTTGA GGGAAGGCCACCTGTTGGCT CTGGGGCAGCAGGTATCCA GTGGGCTTCAGGAGTCACCA GGCCTCTGACCAGTTCCCTCCC CACCAAGCAGTTTCAGAGTTG TCCGCCAACGTCTATTCACAC CTCTCGTGTATGCCGAAGCTT (<u>SEQ ID NO: 302</u>)

CTP145B	No significant match		GGACTGATAATAATAGGATTT ATTCTAAAATTATCTTAGAG CTTCAAGAGTATAACACACA GATCTTACCAACCACACCCCC CTTGCTATACAGGAAACAC CAAGTTGTGAGAACATTATCA TGCACAGACACATCAGGGCTT GCAGGGCTACACAGGAATCA CAAATGCTGTTCCACATCATG TCTTCTGTTATGCCGAAGCTT (SEQ ID NO: 303)
CTP148B	Homo sapiens serine-threonine protein kinase (MNBH)	AF108830	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTATATA GCACCTAAAAAACCATTTGTTA CATTAATGTCGAACCTAAACT TTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTATGAGGAATTG TGTTAATGATCTCTCCTCTAA AAAGGACTCTCCCTATTATCA TAATGACCACACTGCCGTCC TTAAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT (SEQ ID NO: 304)
CTP149B	No significant match		AGGAAGAATAAAAACATATAAA AACATTTATTCACTAGGAATAA TTGTGGCAGACACAATCCAGT GAAAGCAGCTCAATCCTGTC AGTTAGGCTAGTTGAAGAAC ATACTTTAAAAAAAGAAAGGAA GACAGGGCAAACAAGTGTTTA CAGGAGCAACAGACTTCAAGG TCACCCCCACAAGACACCCCTG CACAGCAGGGACGGGGACAG GGAGGGATGACCTCTTAGGGC CTGTGCCCTCGCAGAGGTGCT CGGCGGATGGGTGTGGTCTT CTTGGGTGTCTCCTCTTCTGT CATCTATGCCGAAGCTT (SEQ ID NO: 305)

CTP150A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAACAGTTACATA GCACTAAAAAACATTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAGGAAGCAGA TATACGCTTATGAGGAAATTG TGTTAATGATCTCCCTCTAAA AAAGGACTCTCCCTATTATCA TAATGACCACACTGCCCGTCC TAAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT (<u>SEQ ID NO: 306</u>)
CTP150C	Canis familiaris mitochondrion	CFU96639	AGGATCCTCATCAATAATAG ATACATACAAGAACAGCCAGA CTACATCAACAAAGTGTCAATA TCATGCAGCGGCTTCAAATCC GAAGTGGTGGTTGATGTGAA GTGGTAGTATAGCTGTCGGAG GAAGCACACGATGAGGAATGT AGAGCCAATAATTACGTGTAA TCCGTGAAATCCAGTGGCTAT AAAAAAGGTAGATCCGTATAC CCCATCGGAGATTGTAAAAGA TGTCTCATAGTATGCCGAAGC TT (<u>SEQ ID NO: 307</u>)
CTP154A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAACAGTTATATA GCACTAAAAAACATTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAGGAAGCAGA TATACGCTTATGAGGAAATTG TGTTAATGATCTCCCTCTAAA AAAGGACTCTCCCTATTATCA TAATGACCACACTGCCCGTCC TAAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT (<u>SEQ ID NO: 308</u>)
CTP156J	Human DNA sequence from clone RP5-975D15 on chromosome 1p31.3-32.2	AL136120	AAGCTTCGGTAACCACTGCT AATAACTAAAATACTCTAACTT GGAATAATCGACTCCGACGTC TTTATTTTCCAAGTTGCCTTT TCTTTAAAACACCTTTTCTGA TTTAACACGGAATAACGGTCTT CTTTCCACTCGATAACTATGG TGTCTCTGGTTACTGCTT AAGAAAAGTTGGTTGGGCCA TTTCG (<u>SEQ ID NO: 309</u>)

CTP161B	Canis familiaris TCTA gene, AMT gene, DAG1 gene and BSN gene	AJ012166	AAGCTTTTTTTGAAGATA CAAGTTAGAGTTCAATCAGTA CCAAAGGTAAGGAAAAATTAA CTCTATGTACACAGTCGAGTT TTATCCTGCTAAAATTGTCAA GTAGAGAAAATTCTGAAAATAT TTATGAAAAGCTATTCTCATG CTGGCAGCAATGGTTAAAATA AAGATATTCCTTATTAAAAAA AGAAAAAGCCTAAAAAACAC TTAAATAATCAAGTTGCTGTG AAGTGAAGGGTTGAAAGTG ATGAAACTGAAGTTAAAGTTC TCTATATGTGTGTTTACTTTA AGCAAATTAGACATAGTGAAT AAAATTGAATTTCAGACAAA TTATTGCTTTTTTTATTTTA TTTATTATTATCATGAGAGACAC AGAGAGAGAGAGGGCAGAGAC ACAGGCAGAGGGAGAAGCAG GCTCCACGCAGGGAGCCCAA TGTGGGACTCGATCTGGGAAC TCCGGGATCAAGCCCTGAGCT GAAGGTAGACACTCAACCCT GAGCCACCCAGGTGCCCTGA TTGCTTTAAAGAAGTCTCC CCCTTCC (SEQ ID NO: 310)
CTP164A	No significant match		AAGCTTCGGCATACGGTGTGA GGTTACAGTCCAGTTTGTGT GCTTACTACACGGTTGGTT ACAGGACTTCTGTGCATTGTA AAACATAAACAGCATGGAAA GTTAAATACCTGTGTGCAGA TTGTAAGATCTGGTCCGGACT TGCTGTGTATATTGTAACGTTA AGTAAAAAGAACCCCCCTTT GTATCATAGTCATCGGGTCTT ATGTATGATAAACAGTTGAATA ATTGTCTCAGACTTTACT ATGCTTTAAATTAAAGAAA AATGTAATATAGAAAAATCT TCCTATGCAATTAAACCTGG (SEQ ID NO: 311)

CTP178B	Homo sapiens mRNA for KIAA1524 protein	AB040957	AATAAGGCTTCATCTAGATTT TTCTGTGAACGTAAAGTTGGT CAAGGATTGTAGGCAGCAGAA GGCTCACAAAACGGTCAGTTG AGGAACAGTTAGCAGTATCTG CAACATCCTCAAATATTCCTT GAACAACTCTAAGGCTAGAAG AGAACAGTTCTGATCTGTC CAGAGGTTGGTTGACCAACG CAGTAGAGCCACAGTAGGTT TAAACATTAGAACGGCTTCC CAGAATGGTGTGCCAGATGG AGACTGTTCAAATATCATCTGA GTGAGCACGTGGCGCAGCTG AGTCACTGAACAGAAGGCAAG AAGTAATTCTAAAACCTTGAA GAAGAAATCAGGATCCTTCCA TTGAGAAGACCTAATACTTGA CTAAGACATGAAGAAAAGTGC TCATACCTGGTAAGCTT (<u>SEQ ID NO: 312</u>)
CTP179K	No significant match		AAGCTTACCAAGGTAGAGGGAC TGTTGGAGGTATGGACGCACA CAGGAGGGCCAGGCCAAGGC ACGAGTTTTCAGTGAAGGGG GTAAAGCATCACAAATTAAAAT GTTGCAATTAAACTGGTTGT TAAATATC (<u>SEQ ID NO: 313</u>)
CTP185C	No significant match		CAGCGAAGAGGCATTAAGAT TCATGCCATAAGTTATTTACA AACATGTTGTATGTTGAATT CAAGAGATTGATCCATTTC GAGACTGCACCTCTTAAATG TTCCTTTCACATCTGTTAGT GGATCAAAAGCTT (<u>SEQ ID NO: 314</u>)
CTP197A	No significant match		ATGGTGTGTGTGGGTC ATAGTTATTACACCTCTGTAGT GAAAAAACAAAGGAGAAATAA ATCTGCTTACAATGGCCAAA TTTATGGAGAAGGCCCTAAAGT TGCTTCCC AAATCACAATC TGATTCAAGAGAAGGAAAAAA ATGATGAAAACATCTCATCAC ACAAAAC TCAGTGTGGTGTCT CTGATAGTCATCAGCCAGCAG AAGCTT (<u>SEQ ID NO: 315</u>)

CTP201B	Homo sapiens, exostoses (multiple) 1, clone MGC:2129	BC001174	ATCATTCAAAATAATCATT AATGTTCCATAATTAAGTGA CACGACCTAGTCTGGGACAT AGAACCGAGTGAGGTGAGTT GGAGCAGTCCCAGGAGCCAG GAGTCGAGTTTCATTGGCCT TTTTTTCTTTTTCTTTTGTCT ATTCTGTTCATCTAAGATTATT TGGATACTGGCACAATCTGG CTCTGCTGCTAAGCTT (<u>SEQ ID NO: 316</u>)
CTP202C	No significant match		AGAAAAAAAATTGATAATTAGG TGCAGATAGAAAATATGAATTA GAAGAGGTTAATTCAAGTGT CAGCCTGAAAGTTCAAGCTTC TTAGCTTGTGGTAAATCCAC CACTTCAGATAGTAACTAAAGT AAATTTAAATTCATAAGAAT AAAGTAATCCCTGAAAAGAATT CACTTTTTCCCAGAAGAAGC TTATAATTAAAAAAAAAAGCT T (<u>SEQ ID NO: 317</u>)
CTP205D	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN	XM_011187	ATTAAGAAAAAGGAAAGCAAG GAAGTAATACGGACAGTGT TGAGAACAGAGACGAAGTTAA CGTACATTGCATGTATTGCAG GCAAGGCAGAGGCATTTCTT TTAAAGCTTTGCACAGACTTC ATATAATCTAAAAAAAATACG CGGGCCTTACAAGATTGAC TTGCTGAAATCAAACAAATTTC CACTCATAAAAAGTCATAAGA CATCAGCTT (<u>SEQ ID NO: 318</u>)
CTP206A	Homo sapiens fatty acid desaturase 1 (FADS1)	NM_013402	CAGGCTGGTGTATAGGTGAA GATAGGCATCTCTACAGATG GGGGTGGGGCTGTTGTAC TGGTGAAGATAGGCATCTAGC CAGAGCTGCCAGACTCCTTC AGTGAGTAGATAATGTCGGCG AAGGCTGAGAGCAGGGGCTT GGACTGGTACTCTATGCCATG CTTGGCACACAGGGACTGCAC CAGGGGAGCCACTTTATGGTA ATTGTGTCGAGGCATCGTAAG CTT (<u>SEQ ID NO: 319</u>)

CTP208B	No significant match		CTAGAGGAAGTGCTTTTATT TTAGATCAACCAAACATATTAA ATATAAAAACCTTTAATATAC AAACTGTAATCACAATTGCATC CACGTAGCAGCGAGGGAATG GGGTGTTGCAGGAAGCTT (SEQ ID NO: 320)
CTP215B	No significant match		AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAAGAG GAAATTCTCTTCTAAGGAGGA GCCACTTAGCAGTGGACCTGA AGAGGCTGCTGGCAACAAGA GCGGCAGCTCCAAGAAAAAGA AAAAGCTCCAGAAGCTATCCC AGGAAGATTAGAATGGACATT TTACCAGGTGGGGCAAACCCA CATGATTCCAACCCACCCCTT ATATCCCAATAAAACAAATTCA ACAGG (SEQ ID NO: 321)
CTP216A	Canis familiaris heat-shock protein (HSP27)	U19368	AGGCAGTTGCTTGAACTTTAT TTGAGAAAAACAAAAGGTAAA TGTATCAAAGAGCATAACAGG TTAGTGTGCAGGGACGGTCAG TGATGGCTACTGAGGTGAGGA TGTGGGCTAACGCAGGGCTAA GGCCTTACTTGGCTCCAGAC TGCTCCGACTTCCAGCTTCT GGGCCCCCAATCTGGGCACG TGCCTCTAACGCTT (SEQ ID NO: 322)
CTP222D	No significant match		AAGCTTACCAAGGTGAAGAGTG GGGTTGTCATGACCTTGGCTA TGACGCCAGCATTGAGGT GGCTCCCTCTATTCTTACTTT GGGCATCATAGAAAACGTGTC TCTGGGGGATTAATCTTAGAG AAAAATAAAGCCTTCTGCTG (SEQ ID NO: 323)
CTP300B	Homo sapiens utrophin (homologous to dystrophin) (UTRN),	NM_007124	CCAAGGTTCACCAAGCTTCA ACAAGCACTGTTCTTAATAA TTCCTGCCACAATATAATTAA TCTTGTAGCCTACTCCAACGT TCCTCTGTCCAACGGCACACT GCTGTCCAGCGTTCACCAAGC TT (SEQ ID NO: 324)

CTP304B	Homo sapiens unknown mRNA	XM_002211	AAGCTTAGCAGCACAGCACAC CAACATAACAAACACCGAGT GACTACAGTACATGCCGAGGT AAGAAAAGTACATTGGGGAG ACTATCACTGACACTCAAGCC ATTTTATTCACCAATATGTTTG CTTCACCTTCCCAGTGCCA AAAAAAAAAAACCTAGTCACA AATTGGAGTAAATAAGAATCG GTGCCAGTTGACCT (<u>SEQ ID NO: 325</u>)
CTP306B	No significant match		AAGCTTCTGCTGGTATGGAAA GCCTTCAAGGAAGAGGGTAAT GAGGGGGAAGAAGTGCTGTG CAAAGTGACAGCATTAGTG AGGAATAAAGAAAGGAGCTA GTGGTAGCAGGATGTTGAGCT TCCAAGAAAATCTGGTGGTGG TGAGAAAGTGGCTGCTGTGCA CTGCAAGGAAACAGAGCGATT AAAGAAAGAGATGTGACAGGG TAGGTGGAAGAGATAGCCAGA AGTTAGAAATGGGTTACACTG AAGAAGTAAATTATTTGATTAA ACAATAAGTAAATATACTGGG GATAACAAAAGCCTGATTCT CCACTGTCTCAGAAGGGATT GCAAGTATGG (<u>SEQ ID NO: 326</u>)
CTP308KK	No significant match		AAGCTTCTCTGGATGAACAG TTAAATGGAACCTGGAAACCT CTTCCTGGGATTATTCCTTAAG CAAGGCAGTGTCAAAGGCAAC CCTCCCAGCAAGACTTCAGAA AACAGCTGGCAGAACTACAGG ATCTGGTGTCTGGTGTGAAA ATACTCTCCTCCCTGTTCAAAT GATTAGAACATGTGCAAAGT GTGCTAGCTTCATCACATATA CATAACAGCATTATGTATCAAG TTACCCCTGTTCAAACAAGGGAG CAGGCTTCCTCTTTTGACTTA AATGACATGAAGTGAGAAAAAA AAATGAGAATAACCNTCNNGG GAATTATAGAGGGTTATAATT TATCCCNACTATTCATAAAA GCCATCACGGG (<u>SEQ ID NO: 327</u>)

CTP309A	No significant match	AAGCTTCTGGCTTCCGA AGGTAAAATGTTGCCGAAGT TGCTGCCTTACAAGAGCGTAT CCCAGAAACCATAAGGCTACA ACGCCGAAATTGGGAGCTACA TCAGTTGAATCGATTCAAGAA GGTCATCGCTCAGGCCGTCC CAATACACTGACCTCAAACATAT CAGGCTCAAATCTTAGAGTGG GTCAACACAAGCCCACCTCAAT GCAGAACAAATCCGAGTCAAA CTGCATGAAAAACACGGTGTG TCCGTGCTGTTGAAACTCTT CGCAAGTTTTGCGAGATTCA GGCATGGTCTTCAAACGCACC CGCACAGCTG (<u>SEQ ID NO:</u> 328)
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Please substitute **Table 8** with **Table 8** amended as follows:

Table 8

Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GAUTGAGACCATTATTNAGA CACGCAGCTGACCAAGGAGTG AGGGAGGGACCAGGTGTGCA AGCTAATAAAATAGAGGAGGGG GAGACTTCCTGGAGCTGTAGC CATTCACTTCTTCA GGCATGAAGGCATCTCTTTCT GACCAAAGCTT (<u>SEQ ID NO: 329</u>)
CTP1G	No significant match		AAGCTTGGTCAGCAATTATAT TAGTTGCATTTAGTGACAGG TGTAAGAGAAAGGCCCTCT TCCCTTACTGGGACAATCTA GAAATCTTACACAGATGTGCAA ATAAAGCTCGCGTGGTGTTC (<u>SEQ ID NO: 330</u>)
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACCC ACGAAGTTGTTTAAGGTTACA GCTATGAATAAACATTGTCCAA ACAATGAAGATTAGGGCTGA AGAACGAGCGTATGTCTACAG TCGAAGCTT (<u>SEQ ID NO: 331</u>)
CTP7B	No significant match		CAGGTGCAAGAGGTTGTTG GGAGGTAATCCTAGAAACAC AGAAGGGGGTGGGGATAGGA GGGATGGCAGGAAAACCACTGA AGAACTGTGTTATTGAGAAGG TTATCACTGTGGACAACACTGGC ACAGAATACACTTCAGAGCTG TCGCCCTGAGGGACAATGACG CCAAGGTCTTTCTCTAAGTC CTGTTCTTATAGGCCGAGGG TGGCTCCTGGGAGCAGTA GCCAACAGTCGAAGCTT (<u>SEQ ID NO: 332</u>)

CTP8A	No significant match		AAGCTTGATTGCCCATACCTG AGCCATTGATATATTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTGAAAAGCTTCAG CCTTCACAGAACAGATAACTCT TCTTGTTTGCAGATTGAGCAG ATAATTCTTTGAAGGTGATA GTTTCCTAAATTGGATAAAACC GTGGCTGCCATTATATTACA GAAAATAAAATGAAAACCTCAG TTAATTGGATTG (SEQ ID NO: 333)
CTP17G	No significant match		CATATATATTCTTTTATTCT TGTATACCTCCAAAACAGA GACATTCAACAGTAGTTAGAAT GGCCATCTCCAACATTTAAA AAAACTGCACCCCCCAATGGG TGAACAAAGTAAAGAGTAGTAA CCTAGAGTTAGCTGAGTAAG CCACTGTGGAGCCTTAAGTGG TGAGGTCTTCAATTTCAGAGT GATGTGTCTTCAACTTGTATCA TCATTTAGCGGAAAAGCTT (SEQ ID NO: 334)
CTP18B	No significant match		CCAAAGAAGTGTATTAAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCAA GGCCTGCAAGACAGATCCCCT TGCTCAGGAGGCAGCCCAGAT TGCAAATGGAAGACAGG (SEQ ID NO: 335)
CTP25D	No significant match		AAGCTTGCACCATATATAAC TCTTGGGCAGAGGGTCTGGCA TACATAAGTAGATACTCAGAAA TATCTGTTGGATTGTGTTGATT TAATTATTTGTGTTGCTTCTT TTAAGATGAGCACTTCTATT AGATATTTTTGATCAAAAAA AAGATATTTTTGATCATACA GATTTAAGCAGGATTTTATTA ATTCTTCTCTTGGTTGG (SEQ ID NO: 336)
CTP31A	No significant match		GGGGCAGATAAAAACACTAA TGTAAAATTCACCTCTCAGAA AAATTCCAGTATGCTATACGG TATCACTAACTATAGTCACTAT AGTATACAGTAGATCCCTAGG ATTATTATGATGTACAGTCG AAGCTT (SEQ ID NO: 337)

CTP36A	No significant match		CAAGTTTACCATGGTTTAATT ATTGAAACAAAATTAACGTAAG TAGAATCATGTGCAACAGTGT CTCTAACATATGGAAGAGGTA AATATGAATTTATACAATAAG GTATATTATCCACTGTAACAAA TTTCCAATAATTTGGCATTAT CTTCACAAAATGTCTCCAAA TTCTAAGCAAAGTATGCAAATT GGAGAGTTAACTCTAACAGGC ATAATTATCTTCTTATCCAGTTT TTCTGAAGAGACTGAAGAGTT CAGGTCTGACCAAAGCTT (SEQ ID NO: 338)
CTP47G	No significant match		AAGCTTGCACCATACTCCTCCT CTACATATGCTCCCAAATTACC TTCTAAAAAGGCTGTATTAATT TACTTCACCAGTAGTATTATG AGAGTGCCCATGTCCTTAGC CTTTTAAAATTCACTATGAGCA ATCTTAAATCATGTACTAAAT CTTATAGGCAAAGAATAGGGC CTTGCCTCTGCCCTGTT (SEQ ID NO: 339)
CTP50A	No significant match		ATTCCTTTCCAAGGACCTCTC TTCTATGTGATCACTGAGTAAG TTCAGTCACTCCCATCATCTCT AGATTGGAGATTCCCAAATTAA TGGCCTTCCTAACTTGAAGT CCTTATTCTAACTGCCTACTA AGCTT (SEQ ID NO: 340)
CTP52B	No significant match		AAGCTTAGTAGGCAATAATAGA GAAGTAGAAATTGAATGTGGA ACATTAACCATTAAAAATCATA CTTTGAATGTGCTGAGGTCT GAATTGTTTACCTTCTTGT AATTGTTGTTTTCAGATTCT GTAGTTAGCATATATTCTATAA TCAGAAAAGATGCTTCAAGTT TTTGCAGATTTCACAGAATT TGTTT (SEQ ID NO: 341)
CTP53A	No significant match		AAACAAAATTCTGTGAAATCTG CAAAAAACTTGAAGCATCTTTT TCTGATTATAGAATATCTGCTA ACTACAGAAAATCTGAAAACA CAAATTACAAAGAAGATAAAA CAATTCAATGACCTCAGCACATT CAAAAGTATGATTAAATGGT TAATGTTCCACATTCAATTCT ACTTCTCTATTATTGCCTACTA AGCTT (SEQ ID NO: 342)

CTP58A	No significant match		AATTGTCACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTGATCCCTGATCTAGG CCTCGGGCTTTCAAACGTGAG TTGATCAAACGGATATGCTT CGGCTGAATCTGCTCTGGT GCTTCTCTTAATCGTTCTC CTTAAATGGGTTACTTTCTTAC TAGGAAAAAAAATGTTCCAC CTCTGGAATTAACGTTGAGAA GCTT (SEQ ID NO: 343)
CTP62A	No significant match		AAGCTTCGACTGTCGCATCAA TGAATGTTTAAGTAATAACTT TGCTGGTTATCAGCTTGATGG TGCATTAATTATGGCTCATT TCCTTATTTGACCATTGTCG GATTCTTCATTATGGAC GATCCCCATCGAACGGTACC AATTTTTCAGCTGTGATTGCG GCATGTTCAACGCGACCGTT TTGAAATTAAAACATTATT TGGCTGGGTATGAGTAATT CACCAAGCTATGAAATCGTTAT GGTGCTTTGCAGCAGTCCT ATTTTCTACTTGGATCTATCT GTCTTCCAATATCATTATTG GGTGTAGAAGTGAGTTATGCA CTCACCGCCTCCATTCTGGT (SEQ ID NO: 344)
CTP63A	No significant match		AGAATCAAGCCACCAGGTGTT TATTTTGCACTATAATAGAG TTCCCTAGTCCCATTGTTAC ATAATATATGAGATAACAGAGA ACCTAAAATTCAATTGGTGAA ATCAAGTGTGAGTACCTAA ATACCAATGAGCTAGTAAGACT TGTAAGGCACTGAAGCTAAGG CTAACAGCAACAGAGTCCTTA TGAAAATAATTCAAGAACACAA ACGCATTCTGTGATGGTGCATT CCCCTGGGACAGTCGAAGCTT (SEQ ID NO: 345)

CTP64B	No significant match		CATCGCAGACATTATTAGT TTGTTAATTCAAATATT CATT AACCTCTGTATCAGATTAAAG GCAGAGAAAAGATA CACGCC CTGGTTACTGAACC GGTT TAGATAGTGTAGTCCACCTG GGTCCACCAGGGAGACCTCA CCCGAGATGACAGGTCCGGTT GCTGGTGCACAGTCGAAGCTT (SEQ ID NO: 346)
CTP70A	No significant match		AAGCTTAGTAGGCACGCAATA AATAGGAGAATGAATCAGAGT CCTCCAACGCGTCCCTCCCTAA TGTCCCTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTGT CCATGTCACTTCGCTCCAGAG CAGCCGCAAGAGCATCTAAC ACCTTGTTGGCCTGAAC TCTCT CCCACCTCCACTGTACAGTG ATATGACTGAAACCTATTAA CCTTTAGAACTACCAGGAGG AGGTTCCCAAGGATCCCAGG (SEQ ID NO: 347)
CTP72B	No significant match		CCATTTTGCTCTTAAAGAGCA TCTTAAGT GAGAGATCATGACA ATCTTG GCCACTCCAGGTTT CTCATCTACTACATGATCTGTT CCCAACAATAAGCCATTGAAAT TAAAGGTCTCCAGAAGTTTAT CTGGGGTCTGTGATTGAAAAG AAGGAAAATGAGATGAGAGAC TGCCTACTAAGCTT (SEQ ID NO: 348)
CTP73B	No significant match		CCCATAAGAAACATCTTAAAA CATT CAGAATACTCAGGATAAT CAAGGCTAATATT CCTATAAAAT TCCTTACGTGTATTATGTACAT TCAGAAAAGTGTAAATTACTCA AATATTATACTCAAAACCCCTT ATAGTCTGCTAACTTGCATGTA GAAACATCTGAAGTAACATGCT GCCTACTAAGCTT (SEQ ID NO: 349)

CTP74A	No significant match		AAGCTTAGTAGGCATCAATTG GATCCTTCCTATGTTGAAATG GAAGAATTAATGAGCTTACATT AATTAGTATTGTATGTGTAAA GGAAGCCCAGCAAAATTTTT GAAAACTTGATGATCCCAACG TATTACCATTTGTATGTTAAAG CAAATAAAATCACCATTTTTA (SEQ ID NO: 350)
CTP75C	No significant match		AAGCTTCTAACGGCCTCCAC CTCCTTCTGCCCTCACAGCC TCCTGGCTCTGGGCCAAAAAG TGATTCAATTGTAAATTATCAT GGTTTCTGCATAAAATGGCC ATTTCTGG (SEQ ID NO: 351)
CTP76B	No significant match		AAGCTTTACCGCCATCTTGG CTCCTGTGGAGGCCTGCTGGG ACCAGGACTCCTAAAGCGACG ANTTTTNTGGAAGGCTTTGGT CCAAGGCCATTGGCCGGCT ATAAACGGGGTCTCCGGAAC AAAGGGAGCACACAGCTCTC TTAAAATTGAAGGTGTTACGC CCGAGATGAAACAGAATTCTAT TTGGGCAAGAGATGCGCTTAT GTATATAAAAGCAAAAGAAC ACAGTCACTCCTGGCGGAAA CCAAACAAAACCAGNAGTCAT CTGGGGAAAAGTAACTCTGGG CCCATGGAAACAAGTGGCATG NGTTCGGTGCCTAAATTCCGAA GCAATNTTCCCTGCTAATGCCAT TGGACACAGAATCCGAGTGAT GCTGTACCCCTCANAGGATT AAAACTAACGAANAANCAATAA ATAAAATGTGGATTGCGNTCTT NGG (SEQ ID NO: 352)
CTP77D	No significant match		CAATTGGTTAGTTTATTTC AAATTGTACAAAATGGCCATAA GCGGCTATAAAAATTCGTT TCGGAACACGTGGAAATTCAG AAAGAACAAACAAGCAGGTTA TCATTTCACAGTGTATGGAAA AGCTCTCTGAGGCAGGAAT CACAACTCTCCCTTCTTCC CCAGTCTCTCGTGGTCTCCTT CCCGGAGCGCTCGAATGAAAC TGGTAAACCCCCGATTCCGTCC GATCGC (SEQ ID NO: 353)

CTP79B	No significant match		CATATATATTCTTTTATTCT TGTTATACTTCCAAAACAGA GACATTCAACAGTAGTTAGAAT GGCCATCTCCAACATTTAA AAAACTGCACCCCCAATGGG TGAACAAAGTAAAGAGTAGTAA CCTAGAGTTCAGCTGAGTAAG CCACTGTGGAGCCTTAAGTGG TGAGGCTTCCAATTTCAGAGT GATGTGTCTTCAACTGTATCA TCATTTAGCGGTAAAAGCTT (SEQ ID NO: 354)
CTP81A	No significant match		CCAAAGAAGTGTATTAAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCAA GGCCTGCAAGACAGATCCCAT TGCTCAGGAGGGCAGCCCAGAT TGCAAATGGAAGACAGGCCAT GGTAGCGGTAAAAGCTT (SEQ ID NO: 355)
CTP92A	No significant match		GCACTAAATTCAAACCAATGAC CTCCCATGTTCTAATTCTGATT GTTAATCCAACACTGGGAGGGT AAACGGGAGACTCTTGGCCT GTCAGTGACAAAATGGTTTGT AAAAAGAAAAAATAAATACGAT ATACAAGTAAGTATAACTAGCA CTCAAGCTT (SEQ ID NO: 356)
CTP99A	No significant match		AGCATATGTAAGATCTCTGGCT TGTAGAAGACAAGTTATATAG CACTAAAAAACCAATTGTTAC ATTAAATGTCGAACCTAAACTT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTATGAGGAAATTGT GTTAATGATCTCTCCTCTAAAA AAGGACTCTCCCTATTATCAT AATGACCACACTGCCCGTCCT TAAAACCCTGGTCGCTGACA TTATGCCGAAGCTT (SEQ ID NO: 357)

CTP103JJ	No significant match	AAGCTTCGGCATAGTTACTGTT TGATTTAAGTTTATATAGTT CTTAGTTTGAAGAAATCCTTC AAGAACAGTTCTAAAGAGC ATGTTTAATTAAATGCTAATTA ATTACCTTCTTAGTTCCAAT TTAGTAGGCCACTTCAATGTC TATTAAGTGAATAAACCTTC TGAACCTAACATTAAATC GATTAAGATTGTGTCAAAAT (SEQ ID NO: 358)
CTP104I	No significant match	AAGCTTTTTTTTCAAACG GATTTGAAAAACTGTATTCT TACACTGTGCACAAACCTTTA TACTAAATAAATATCAAACCTAC ATTCTTCAGAAAGATGTTCTA GTATTTCTTAGGTCACTCC ATATGTAGTATGTACAGTGAGA CCACTTTTAAAAGCAATGAC TTAGGCAAACCAACCTAATG GTTTGTAGACCATTCCCTGT TTTAATTAAAATCATAGGGT TGTGCTCTGTATAAAGTTGT ACATTCACAATGTAAAATACT GACATT (SEQ ID NO: 359)
CTP109P	No significant match	ATGCAACCACACCGAATTATT GAACATTTCACAAAGTGATTTC ATTAAGGAAGGCTTTCTGTG CCTATATTGGTTACCATCACTT TTGCCCTATCACAAATCTCATG GTGTAGCCTTGCATGTAGCA GGAACCTAACAAATGTCTGCT AAATTGACAGATGGAGCCCCA GACGACCTAAAACCTGCACTT AGAAGCACTTACCTCATCCTGA GCTATTATGAATAAGGAACCTCA AGTGACTGTTAAAGCATTCTA CTGATGAGTTGGTAATGTTCTA AAGCAACATATCTCAAAGGAAA GGATATTGAGTTGTCTCCACC ATAAAATCCTATTTAAACAAA GGTACTACTAAAAATGGTCTT CCAAAGGCCTCAGCAGAGGTT CTAAAGAGATGTGACAATATG CCGAAGCTT (SEQ ID NO: 360)

CTP110A	No significant match		AACATATAAAAACATTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTCAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAAAA AAGAAAGGAAGACAGGCAAAC AAGTGTTCACAGGAGCAACA GACTTCAAGGTACCCCCACA AGACACCCTGCACAGCAGGGA CGGGGACAGGGAGGATGACC TCTTAGGGCCTGTGCCCTCGC AGAGGTGCTCGGCGGATGGG TGTGGTCTTCTGGGTGTC CTCTTCTGTATCTATGCCGAA GCTT (<u>SEQ ID NO: 361</u>)
CTP111A	No significant match		AAGCTTCGGCATAAACGATCC ATTCTCCTCGGCCTCCAAAG TGCTAAGGTTCCAGGCGTGA CCACCATGCCAGGCCTGTTCT TTTTTTATCTCTAGGTGGTGC TCTCCAGCTGTAGTAGAAATA GCATTTGATTGGATCTATTT TTAAATAGGGACTAAATACAG ACCATTTGTTAGAGTGAATG CCAACAAGAACGAGATTTTC TCTGGCT (<u>SEQ ID NO: 362</u>)
CTP116A	No significant match		AAAAGAGCATACTTATCAGTTG AATGGGGATAGAGGTTTAGA TATTTCCAAATATTATAAAA CACTTCATTGTTGAGAAATCAC TTACAGAATGGTGGCTATCAA CAAATAATTATAAAATTAAAG CACAAGTCACATGTTTGTAA TCCTGTGTGAATTATTAGC TGTGACATTAATTGAAAACAT CAGATATGTTTGAAAAGTCT TAATTGAGAACAACTGAAGGA AGTTAATCCAGAACTATATGT AGTTAGCTATTAAATGATGATGC TTTATTGACAGTATATTGCTAA TATATTCTTCATGAAATCTGA AGTTAAATAGTTCGTTGTGGA ATAGTGTCACTGTAACATTCC CTTACGAAGTTCAATAAACCA CTTGCACATAAAAAAAAAAGCT T (<u>SEQ ID NO: 363</u>)

CTP124B	No significant match		ATGGCAAAGCTGGTTATTGAA CTTCGTAAGGGAAATGTTACA GTGACACTATTCCACAACGAA ATTATTTAACTTCAGATTTCAT GAAGAAATATATTAGCAATATA CTGTCAATAAGCATCATCATT AATAGCTAACTACATATAGATT CTGGATTAACTTCCTCAGTTG TTCTCAAATTAAGACTTTCCA AACACATATCTGATGTTTCAAT TAAATGTCACAGCTAAAATAAA TTCACACAGGAGTTACAAAACA TGTGACTTGTGCTTAAAAATT TATAATTATTGTTGATAGCC ACCATTCTGTAAGTGATTCTC AACAAATGAAGTGTTATAAT ATTTTGGAAAATATCTAAAACC TCTATCCCCATTCAACTGATAA GTATGCTCTTTAAAAAAAAAA AGCTT (<u>SEQ ID NO: 364</u>)
CTP126A	No significant match		AAAGAAAGTAATTATGGAACTA GATTTTAACATTGTAAAATAC TAAATGATCCTCAGTTGTAAG TTGATATATATTGTAACCTTT GTGAAATTGTATCCTTATGAAA ATACCACTTTGGAAGAGA GAATCCAACATGTAATATTAA ATTAAAACAATCCATGTTTACC CTATCCCTGCTCAATTAAACAG TGTATATAGGTCTAATAATAGC TCTGGAGCAACTTTATCATGA GTCAAATATATTAAACACATTG ATGTCTCTGGTATATCTGAA AACAAAGAGGTAGAAGTCTGT TGAGAGTCTTAAAATAACTA TTTTACAAATGTAAAAAAAAAA AAGCTT (<u>SEQ ID NO: 365</u>)
CTP133B	No significant match		CCAAAAAGAGCCATGCCAGA GGGAAAGTTGGAAACGAAAGC CAAGTTTCATTAAAAGGAAA CANTAAAGAGGTTAGCCAGAG AAACTTGAACCAAAGAAAAGA CAGCACGCTGTTCAGAATGGT CAATAAGAGCCTAAACCGGTA CCCTCGGAATGAAGCTT (<u>SEQ ID NO: 366</u>)

CTP134A	No significant match		CCAAAAAGAGCCATGCCAGA GGGAAAGTTGAAACGAAAGC CAAGTTTCATTAAAAGGAA CATTAAGAGGTTAGCCAGAG AAACTTGAACCAAAGAAAAGA CAGCACGCTGTTCAGAATGGT CAATAAGAGCCTAAAACGGTA CCCTCGGAATGAAGCTT (<u>SEQ ID NO: 367</u>)
CTP143B	No significant match		AAGATTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGAG AGAGGCAGCAGCAGACTCCCT GCTGAGCTGGGAGCCAACTTG GGACTCGATGCCGGGACCCC AGGATCATTACCCGAAGCTT (<u>SEQ ID NO: 368</u>)
CTP144B	No significant match		GGGTAATCCGTCCAGTTAC TGTAAATATGCCCTTGACAAAC TGGTAACTCATGTCCCATCCC AGTCCCAGTACTGGACCAGG GAAACTCCAGCCACAGTTGAG GGAAGGCCACCTGTTGGCTCT GGGGCAGCAGGTCACTCCAGT GGGCTTCAGGAGTCACCAGGC CTCTGACCAGTTCTCCCCAC CAAGCAGTTCAGAGTTGTCC GCCAAGTCTATTCACACCTCT CGTGTATGCCGAAGCTT (<u>SEQ ID NO: 369</u>)
CTP145B	No significant match		GGACTGATAATAATAGGATTT ATTTCTAAAATTATCTTAGAG CTTCAAAAGAGTATAACACACA GATCTTACCAACACACCCCCC CTTGCCTATACAGGAAACAAC CAAGTTGTGAGAACATTATCA TGCACAGACACATCAGGGCTT GCAGGTGCTACACAGGAATCA CAAATGCTGTTCCACATCATGT CTTCTGTTATGCCGAAGCTT (<u>SEQ ID NO: 370</u>)

CTP149B	No significant match		AGGAAGAATAAAAACATATAAA AACATTATTCACTAGGAATAA TTGTGGCAGACACAATCCAGT GAAAGCAGCTCAATCCTGCTC AGTTAGGCTAGTTGAAGAACCC ATACTTTAAAAAAAGAAAGGAA GACAGGCAAACAAGTGTGTTA CAGGAGCAACAGACTTCAGG TCACCCCCACAAGACACCCCTG CACAGCAGGGACGGGGACAG GGAGGATGACCTCTTAGGGCC TGTGCCCTCGCAGAGGTGCTC GGCGGATGGGTGTGGTCTTCT TGGGTGTCTCCTCTTGTGTCAT CTATGCCGAAGCTT (<u>SEQ ID</u> <u>NO: 371</u>)
CTP150A	No significant match		AGCATATGTAAGATCTCTGGCT TGTAGAAGACAAGTTACATAG CACTTAAAAAACCATTTGTTAC ATTAATGTCGAACTCAAACCTT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTATGAGGAAATTGT GTTAATGATCTCCCTCTAAAA AAGGACTCTCCCTATTATCAT AATGACCACACTGCCCGTCCT TAAAACCACTGGTCGCTGACA TTATGCCGAAGCTT (<u>SEQ ID</u> <u>NO: 372</u>)
CTP154A	No significant match		AGCATATGTAAGATCTCTGGCT TGTAGAAGACAAGTTATATAG CACTTAAAAAACCATTTGTTAC ATTAATGTCGAACTCAAACCTT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTATGAGGAAATTGT GTTAATGATCTCCCTCTAAAA AAGGACTCTCCCTATTATCAT AATGACCACACTGCCCGTCCT TAAAACCACTGGTCGCTGACA TTATGCCGAAGCTT (<u>SEQ ID</u> <u>NO: 373</u>)

CTP164A	No significant match		AAGCTTCGGCATAACGGTGTGA GGTTACAGTCCAGTTTGTTG GCTTACTACACGGTTGGTTA CAGGACTCTGTGCATTGAAA ACATAAACAGCATGGAAAAGG TTAAATACCTGTGTGCAGATTG TAAGATCTGGTCCGGACTTGC TGTGTATTTGTAACGTTAAGT GAAAAAGAACCCCCCTTTGTAT CATAGTCATGCGGTCTTATGTA TGATAAACAGTTGAATAATTG TCCTCAGACTCTTACTATGCT TTTTAAAATTAAGAAAATGTA AATATAGAAAAATCTTCTAT GCAATTAAACCTGG (<u>SEQ ID NO: 374</u>)
CTP179K	No significant match		AAGCTTACCAGGTAGAGGGAC TGTGGAGGTATGGACGCCACA CAGGAGGGCCAGGCCAAGGC ACGAGTTTTCACTGAAGGGG GTAAAGCATCACAAATTAAAAT GTTGCAAATTAAACTGGTTGT TAAATATC (<u>SEQ ID NO: 375</u>)
CTP185C	No significant match		CAGCGAAGAGGCATTAAGAT TCATGCCATAAGTTATTACA AACATGTTGTGTATGTTGAATT CAAGAGATTGATCCATTTC GAGACTGCACCTCTAAATGT TCCTTTCACATCTGTTAGTG GATCAAAAGCTT (<u>SEQ ID NO: 376</u>)
CTP197A	No significant match		ATGGTGTGTGTGTGGGTTCAA ATAGTTTATTCACCTCTGTAGT GGAAAAACAAGGAGAAATAAA ATCTGCTTACAATGGCCAAAAT TTATGGAGAAGCCCTAAAGTT GCTTTCCCCAAATCACAAATCT GATTCAAGAGAAGGGAAAAAAA TGATGAAAACATCTCATCACA CAAAACTCAGTGTGGTGTCTC TGATAGTCATCAGCCAGCAGA AGCTT (<u>SEQ ID NO: 377</u>)

CTP202C	No significant match		AGAAAAAAAATTGATAATTAGG TGCAGATAGAAAATATGAATTA GAAGAGGTTAATTCAAGTGAT CAGCCTGAAAGTTAGCTCA TTAGCTTGTGGTAAATCCACC ACTTCAGATAGTAACAAAGTA AATTTAAATTTCATAAGAATAA AGTAATCCCTGAAAAGAATTCA CTTTTTCCCAGAAGAAGCTTA TAATTAAAAAAAAGCTT (SEQ ID NO: 378)
CTP208B	No significant match		CTAGAGGAAGTGCTTTTATTT TTAGATCAACCAAACATAATTA ATATAAAAACCTTTAATATACA AACTGTAATCACAAATTGCATCC ACGTAGCAGCGAGGGAATGG GGTGTGAGGAAGCTT (SEQ ID NO: 379)
CTP215B	No significant match		AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAAGAG GAAATTCTCTTCTAAGGAGGA GCCACTTAGCAGTGGACCTGA AGAGGCTGCTGGCAACAAGAG CGGCAGCTCCAAGAAAAAGAA AAAGCTCCAGAAGCTATCCCA GGAAGATTAGAATGGACATTTT ACCAGGTGGGGCAAACCCACA TGATTCCAACCCACCCTATA TCCCAATAAAACAAATTACACA GG (SEQ ID NO: 380)
CTP222D	No significant match		AAGCTTACCAAGGTGAAGAGTG GGGTTGTCATGACCTTGGCTA TGACGCCAGCATTTGAGGT GGCTCCCTCTATTCTTACTTT GGGCATCATAGAAAACGTGTC TCTGGGGGATTAATCTTAGAG AAAATAAAGCCTTCTGCTG (SEQ ID NO: 381)

CTP306B	No significant match	AAGCTTCTGCTGGTATGGAAA GCCTCAAGGAAGAGGGTAAT GAGGGGAAAGAAAGTGCTGTG CCAAAGTGACAGCATTCACTG AGGAATAAAGAAAGGAGCTA GTGGTAGCAGGATGTTGAGCT TCCAAGAAAATCTGGTGGTGG TGAGAAAGTGGCTGCTGTGCA CTGCAAGGAAACAGAGCGATT AAAGAAAGAGATGTGACAGGG TAGGTGGAAGAGAGATGCCAGA AGTTAGAAAATGGGTTACACTG AAGAAGTAAATTATTGATTAA ACAATAAGTAAATATACTGGGG ATAACAAAAGCCTGATTCCTCC ACTGTCTCAGAAGGGATTGCA AAGTATGG (<u>SEQ ID NO: 382</u>)
CTP308KK	No significant match	AAGCTTCTCTGGATGAACAGT TAAATGGAACCTGGAAACCTC TTCCTGGGATTATTCCTTAAGC AAGGCAGTGTCAAAGGCAACC CTCCCAGCAAGACTTCAGAAA ACAGCTGGCAGAACTACAGGA TCTGGTGTCTGGTGTGTAAAAT ACTCTCCTCCCTGTTCAAATGA TTCAGAACATGTGCAAAGTGT GCTAGCTTCATCACATATACA TAACAGCATTATGTATCAAGTT ACCCTGTTCAAACAAAGGAGCA GGCTTCCTCTTTTGACTAAA TGACATGAAGTGAGAAAAAAA ATGAGAATAACCNTCNNGGA ATTATAGAGGGTTATAATTCTA TCCCNACTATTCATAAAAGC CATCACGGG (<u>SEQ ID NO: 383</u>)
CTP309A	No significant match	AAGCTTCTCTGGCTTCCGAA GGTAAAACGTGTTGCCGAAGTT GCTGCGTTACAAGAGCGTATC CCAGAAAACCATAAGGCTACAA CGCCGAAATTGGGAGCTACAT CAGTTGAATCGATTCAAGAAG GTCATCGCTCAGGCCGTCCC ATACACTGACCTCAAACATATCA GGCTCAAATCTTAGAGTGGGT CAACACAAAGCCCACTCATGC AGAACAAATCCGAGTCAAAC GCATGAAAAACACGGTGTGTC CGTGTCTGTTGAAACTCTCG CAAGTTTGCGAGATTCAAGG CATGGTCTCAAACGCACCCG CCACAGCTTG (<u>SEQ ID NO:</u> <u>384</u>)